JVC

INSTRUCTIONS

GR-AX2

CAMERA-RECORDER/PLAYER

1 YU30052-214U

Specifically for the GR-AX2U/AA-V3U

videomovie

VHSC

HQ
High Quality

CCD
Charge Coupled Device

AF
FULL RANGE AF

For Customer Use:
Enter below the Serial Nos. of the GR-AX2U, VideoMovie and the AA-V3U AC Power Adapter/Battery Charger.
The former is located on the bottom of the GR-AX2U and the latter, on the bottom of the AA-V3U.

Model No.	**GR-AX2U**	**AA-V3U**
Serial No.		

YU30052·

Thank you for purchasing the JVC GR-AX2U Compact VHS VideoMovie. Learn about all the available features and take advantage of them for your total moviemaking enjoyment.
Before using this VideoMovie, read this instruction booklet carefully so that you will obtain the best results from your VideoMovie.

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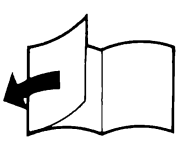
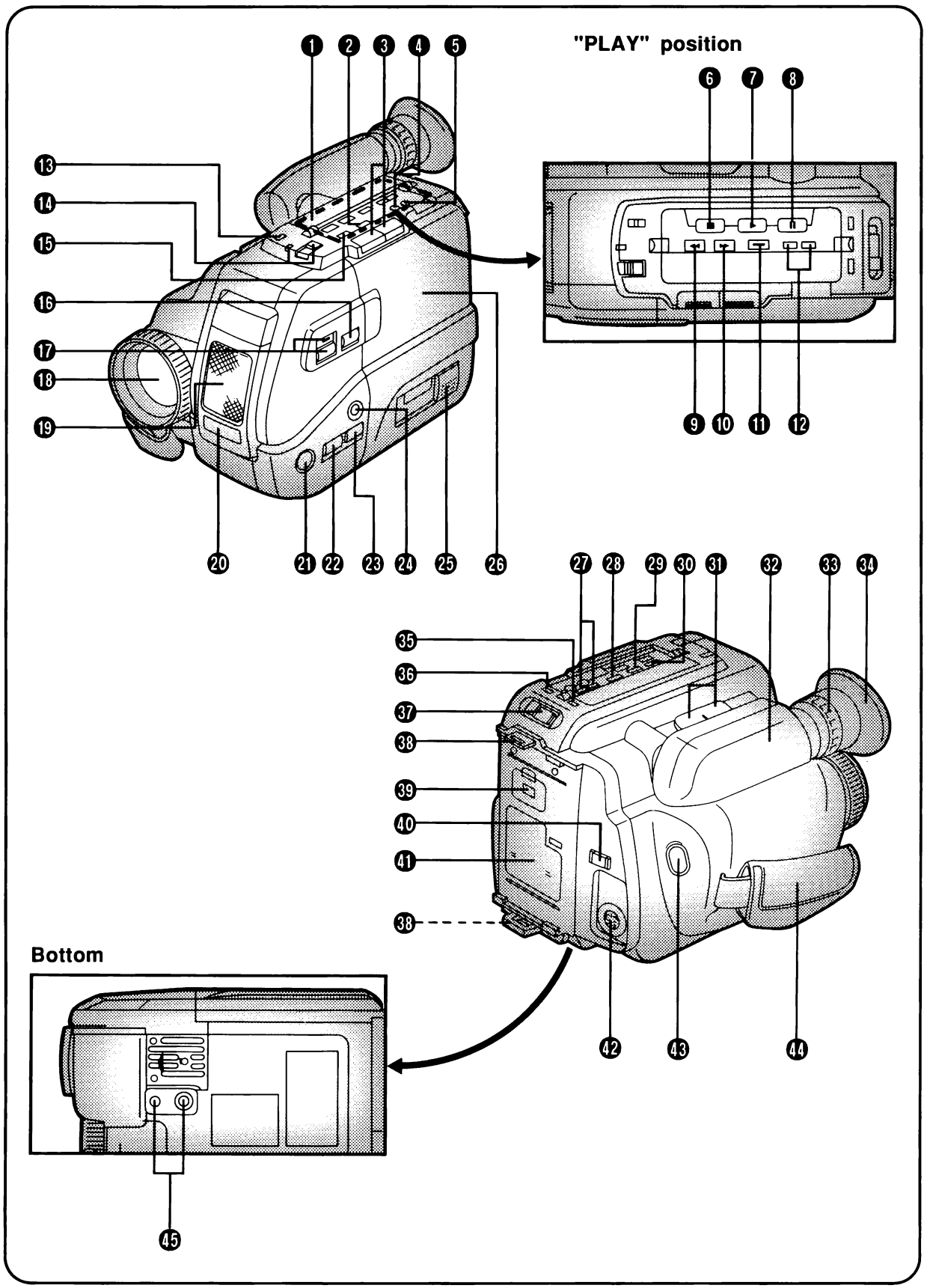
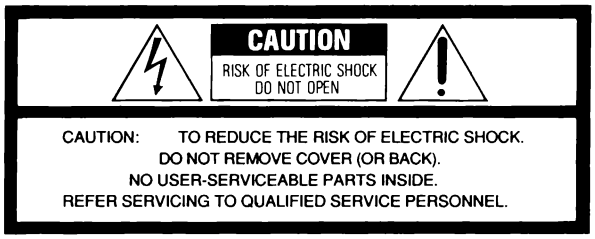



"PLAY" position
Bottom

SAFETY PRECAUTIONS


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The AA-V3U AC Power Adapter/Battery Charger should be used with:
AC 120 V~, 60 Hz in the USA and Canada,
AC 110–240 V~, 50/60 Hz in other countries.

CAUTION (applies to the AA-V3U)
TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
ATTENTION (s'applique à l'AA-V3U)
POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Warning on lithium battery
The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C (212°F) or incinerate.
Replace battery with Panasonic (Matsushita Electric) CR2025; use of another battery may present a risk of fire or explosion.
- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of in fire.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

This equipment should be used with DC 6V ⎓ only.
CAUTION:
To prevent electric shocks and fire hazards, do NOT use any other power source.

NOTES:
- The rating plate (serial number plate) and safety caution are on the bottom of the main unit.
- The rating plate (serial number plate) of the AC power adapter/battery charger is on its bottom.

VHS C HQ High Quality

Cassettes marked VHS C can be used with this VideoMovie.

JVC COMPANY OF AMERICA
Division of US JVC CORP.
41 Slater Drive, Elmwood Park, New Jersey 07407

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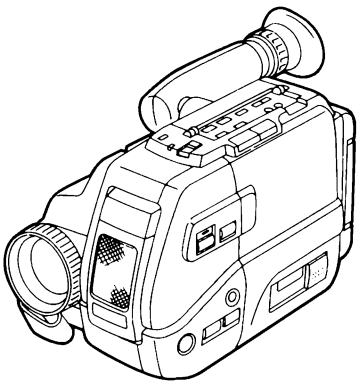
Printed in Japan

MAJOR FEATURES

- **Ultra-compact, ultra-lightweight, a mere 2 lbs**
- **Full Range AF system with Auto Macro**
- **F1.4, 6x power zoom lens**
- **1-Lux low-light sensitivity (with Gain-Up)**
- **Flying erase head**
- **Multiple-speed shutter with 1/4000-sec. setting**
- **Age insertion**



INFORMATION

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Change or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

The JVC VideoMovie is designed to be used with NTSC-type color television signals. It cannot be used for playback with a television of a different standard. However, live recording and viewfinder playback are possible anywhere. Use the BN-V14U/BN-V22U battery packs and, to recharge them, the provided multi-voltage AC power adapter/battery charger. (An appropriate conversion adapter may be necessary to accommodate different designs of AC outlets in different countries.)

CONTROLS AND CONNECTORS

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❹	DISPLAY MODE button	12
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"PLAY" position		
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❾	REW/SHUTTLE SEARCH button	18
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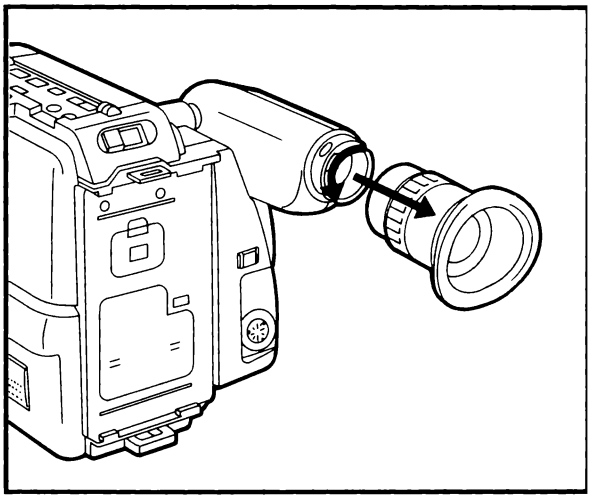
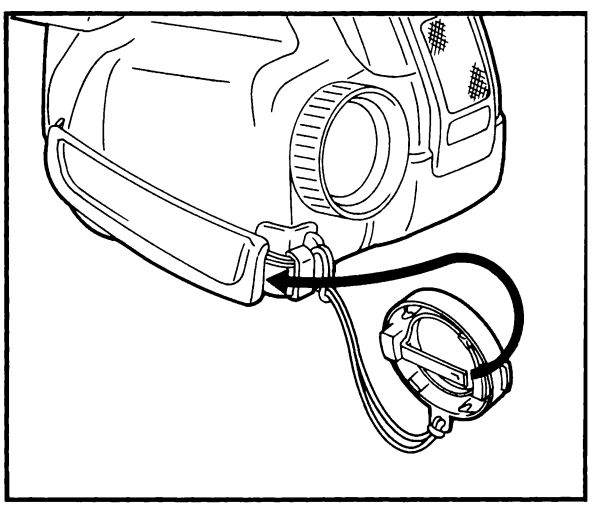
㊳	Eyelets for shoulder strap	25
㊴	Clock battery compartment	7
㊵	BATTERY RELEASE button	5
㊶	Battery pack mount	5
㊷	AV OUT connector	21
㊸	Recording Start/Stop button	10
㊹	Grip strap	9
Bottom		
㊺	Tripod mounting hole/stud hole	25

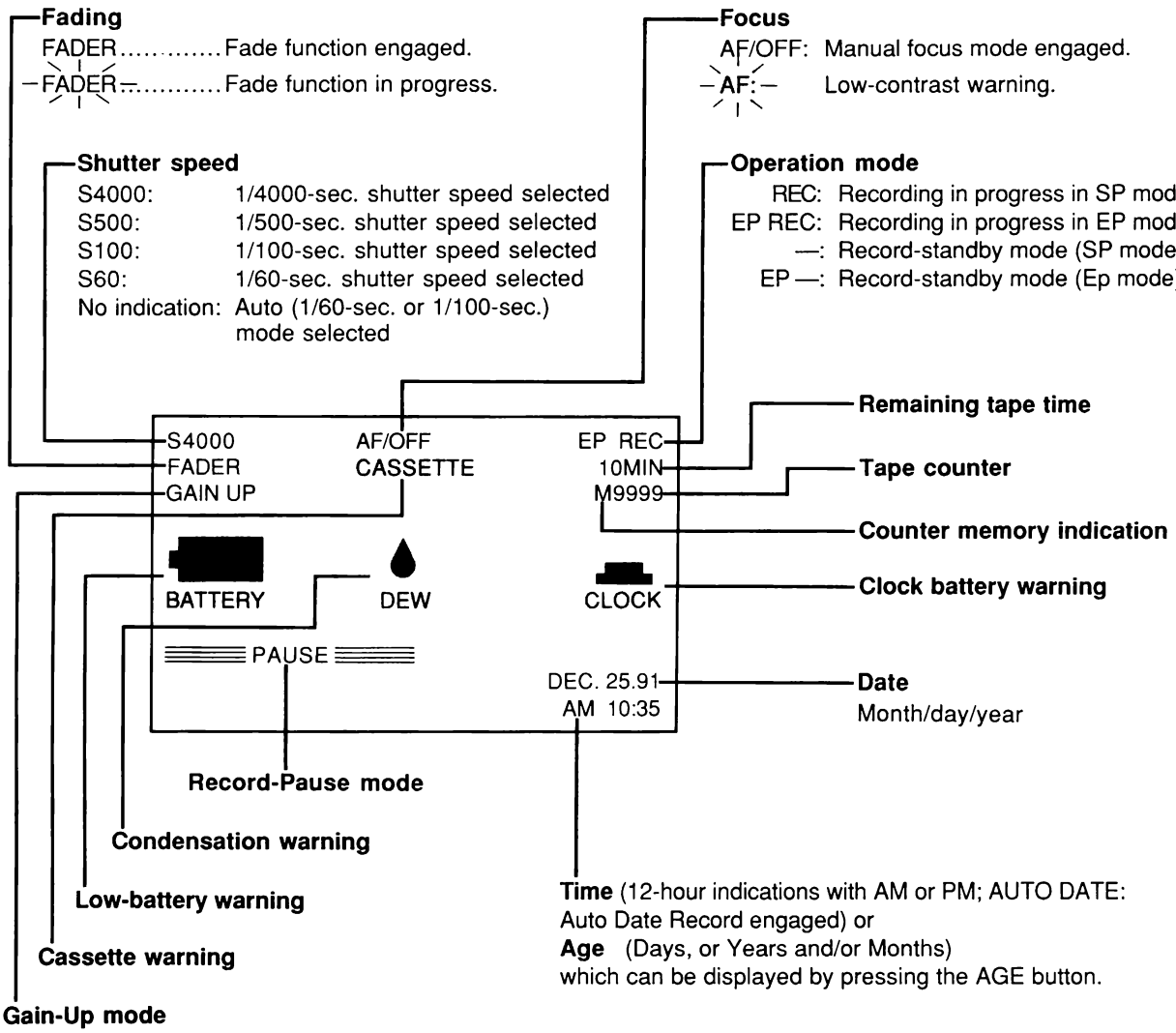


Cleaning the eyepiece
The viewfinder eyepiece can be removed for cleaning. Turn the eyepiece counterclockwise and pull it out.



Attaching the lens cap to the hand grip, prevents it swinging while shooting.

VIEWFINDER INDICATIONS



WARNINGS

BATTERY WARNING

- When the battery power is coming to an end, the battery warning indication appears in the viewfinder. After indication appears, the power turns off automatically. Replace the battery pack with a fully charged one.

CLOCK BATTERY WARNING

- Blinks when the lithium battery is not in place or exhausted. In this condition, no date/time function is available.

CONDENSATION WARNING

- Appears when the excessive moisture condensation occurs inside the unit.

CASSETTE WARNING

- Blinks to warn that no cassette or a cassette without safety tab is loaded.

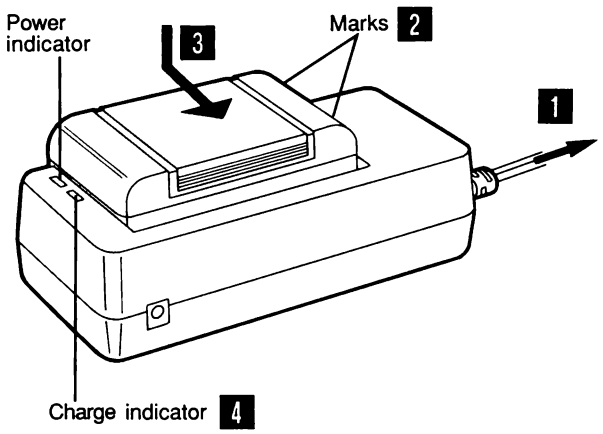
POWER SUPPLY SYSTEM

The convenient 3-way power supply system gives you a choice of the most appropriate power supply unit, depending on the application.

WITH BATTERY PACK

The battery pack has been kept in the uncharged state for shipment. Therefore, before use, be sure to charge it.

Charging procedure



AC power adapter/battery charger AA-V3U

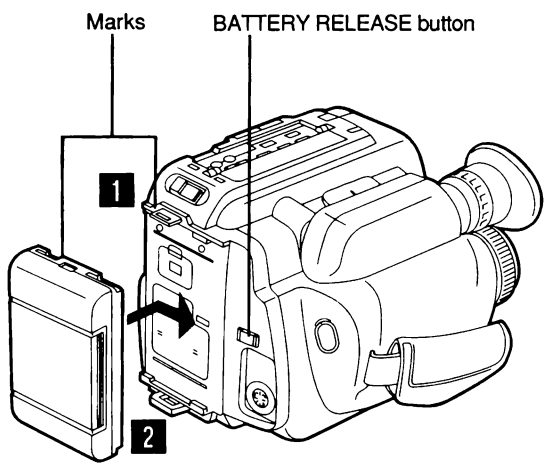
1. Connect the AC power cord to a wall outlet. (The POWER indicator will light.)
2. Align the marks on the battery pack and adapter.
3. Slide the battery pack in the direction of the arrow until it locks in place.
4. When charging is completed, the CHARGE indicator that is red turns green.

- The charging time differs depending on the ambient temperature and the condition of the battery pack.

Charging time

BN-V14U: 80 min.	BN-V22U: 130 min.

Attaching the battery pack



- Before attaching the battery pack, insert the provided lithium battery. (See page 7.)

1. Align the battery pack over the outline in the battery pack mount.
2. Slide the battery pack into place in the direction of the arrow, unit it locks into place.

- To remove the battery pack, press the BATTERY RELEASE button and slide out the battery pack.

Recording time

BN-V14U: 55 min.	BN-V22U: 100 min.

CAUTIONS

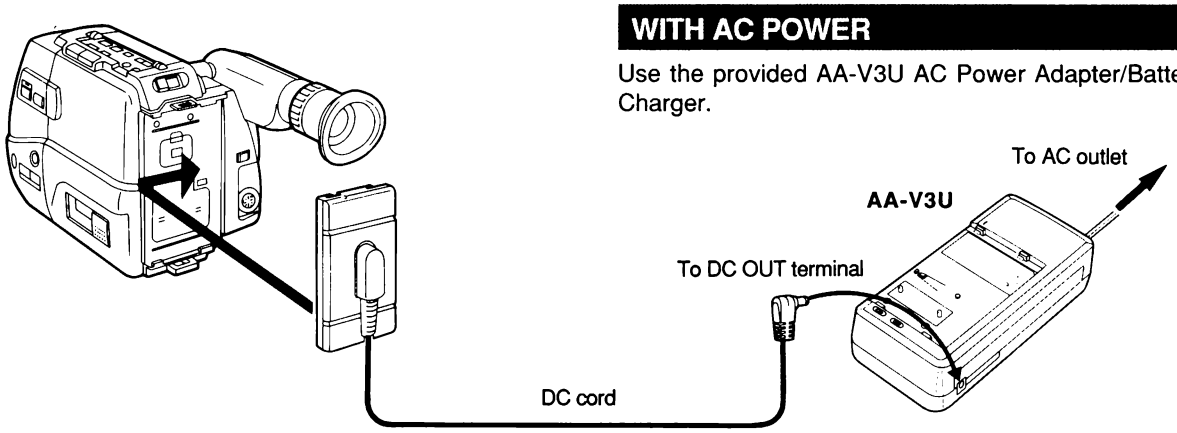
- No function is available without power supply.
- Do not use any power supply other than specified.
- Never attempt to use these power supply units with any equipment other than the VideoMovie.

PRECAUTIONS

- If used near a radio, the provided AA-V3U AC power Adapter/Battery Charger may interfere with reception.
- Prevent inflammables, water and metallic objects from entering the unit.
- Avoid using the unit in extremely hot or humid places.
- The recording time per charge is influenced by the duration of recording standby, frequency of zooming, etc. It is safer to have spare battery packs.

WITH AC POWER

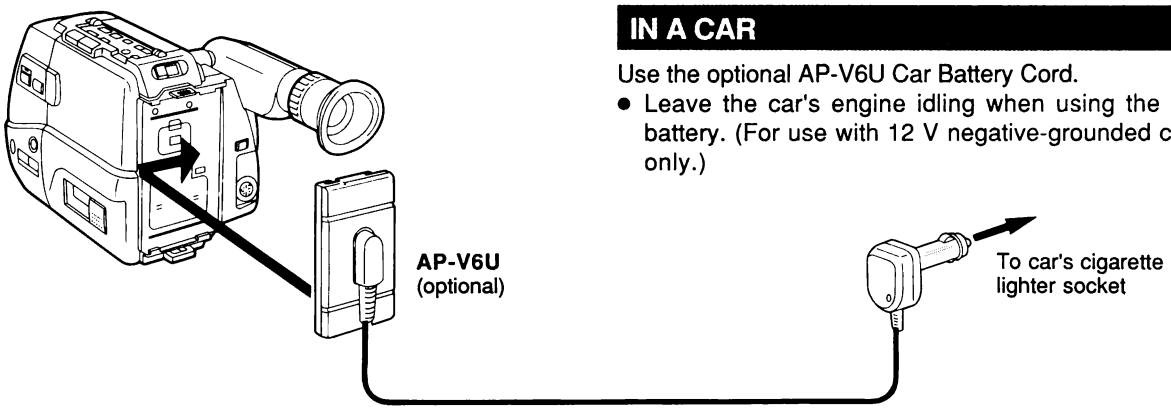
Use the provided AA-V3U AC Power Adapter/Battery Charger.



IN A CAR

Use the optional AP-V6U Car Battery Cord.

- Leave the car's engine idling when using the car battery. (For use with 12 V negative-grounded cars only.)

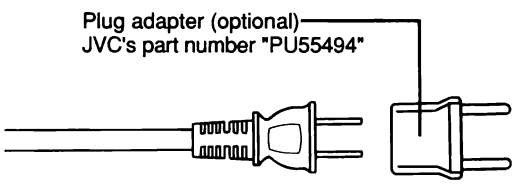


When using the AA-V3U in areas other than the USA

USING HOUSEHOLD AC PLUG ADAPTER

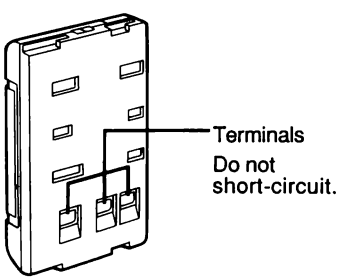
In case of connecting the unit's power cord to an AC wall outlet other than American National Standard C73 series type use an AC plug adapter, called a "Siemens Plug", as shown.

For this AC plug adapter, consult your nearest JVC dealer.



A WORD ON THE EXCLUSIVE BN-V14U/V22U BATTERY PACKS

The BN-V14U/V22U are nickel-cadmium batteries. Be sure to carefully read the caution attached to the battery pack.



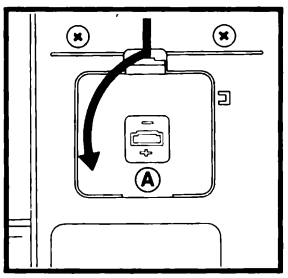
Temperature ranges:

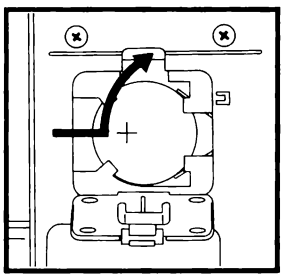
The recharging time is based on room temperature of 20°C.

The lower the temperature, the longer the recharging time.

For charging:	10°C to 35°C	(50°F to 95°F)
For operating:	0°C to 40°C	(32°F to 104°F)
For storing:	–10°C to 30°C	(14°F to 86°F)

DATE/TIME/BIRTHDAY SETTING





Note:

- Replace battery with Panasonic (Matsushita type) CR2025 only. Use of another battery may present risk of fire and explosion.

Warning on lithium battery

- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of in fire.

LITHIUM BATTERY

First, the clock must be set to the correct date and time — this is necessary when a battery is first inserted or replaced.

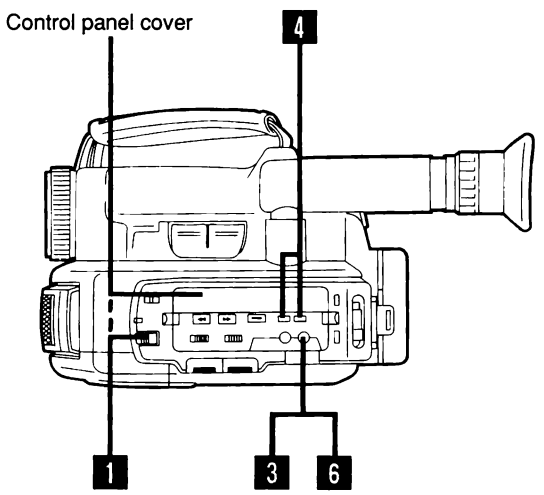
Battery insertion

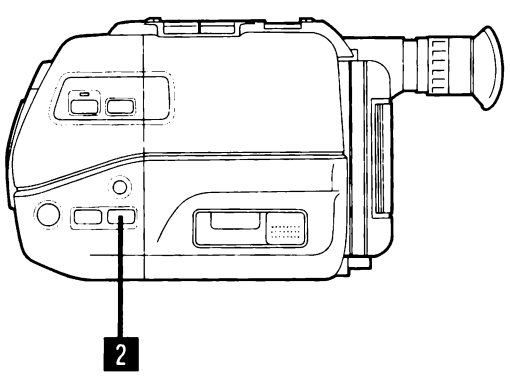
1. Open the clock battery compartment cover on the rear of the VideoMovie. (Ⓐ in the figure.)
2. Insert the provided lithium battery with the plus (+) side up.
3. Close the cover on the unit until it clicks.

Battery replacement

The battery lasts for about one year. When the clock battery warning (CLOCK) appears in the viewfinder, this battery needs to be replaced. Obtain a new CR2025 lithium battery and perform the following procedure.

1. Remove the battery by pressing it in the direction of the arrow.
2. Insert the new CR2025 with the plus (+) side up.
3. Close the cover back until it clicks.



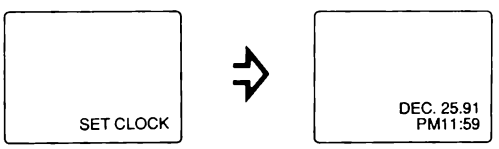


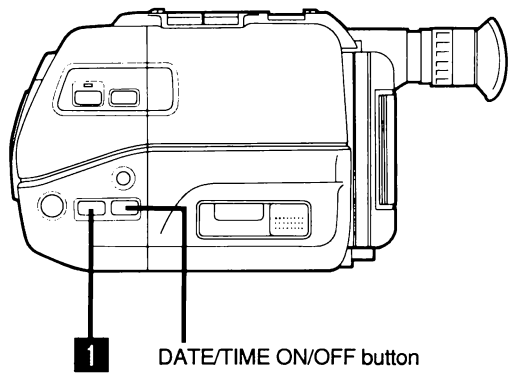
SETTING THE DATE/TIME

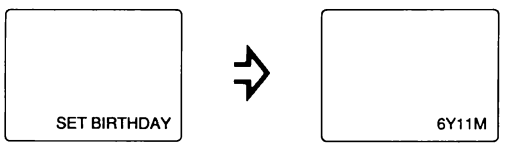
1. Switch the unit's power on, then set the control panel cover to "CAMERA".
2. Press the DATE/TIME ON/OFF button. "SET CLOCK" will appear in the viewfinder.
3. Press the DATE/TIME SELECT button — the month blinks.
4. Press either the DATE/TIME SET "+" or "–" button to choose the correct month.
5. Repeat steps 3 and 4 to set the Date and Time.
6. After all items have been set, press the DATE/TIME SELECT button, and blinking will stop. The Date and Time will be displayed.

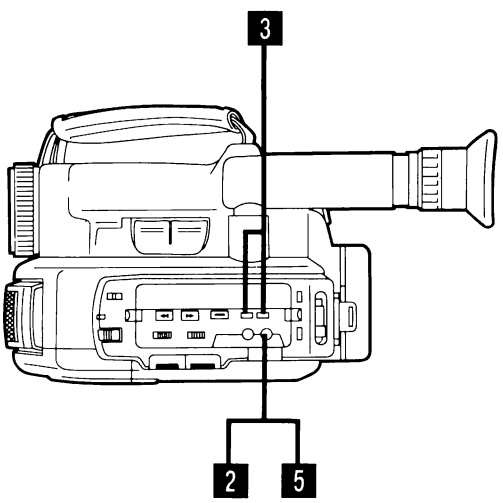
Note:

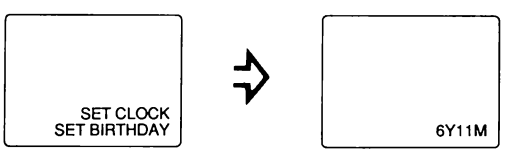
- The clock begins timekeeping when the minute portion stops blinking. While the Date and Time are blinking, the clock does not keep time.











The Age indication is displayed as follows.
Under 1 month: 1D – 31D (1 to 31 days)
Under 1 year: 11M (11 months)
Under 7 years: 6Y11M (6 years 11 months)
Over 7 years: 7Y (MAX: 99Y)

SETTING THE BIRTHDAY (AGE)

The VideoMovie has the "Birthday" memory function so that once someone's date of birth is entered in memory, the unit displays and records his or her age. After the Date and Time have been set, proceed to the Birthday setting.

1. Press the AGE button. "SET BIRTHDAY" will appear in the viewfinder.
2. Press the DATE/TIME SELECT button — the month blinks.
3. Press either the DATE/TIME SET "+" or "–" button to choose the correct month.
4. Repeat steps 2 and 3 to set the Birthday (Date and Year).
5. After all items have been set, press the DATE/TIME SELECT button. The "Age" indication will be displayed.

Note:

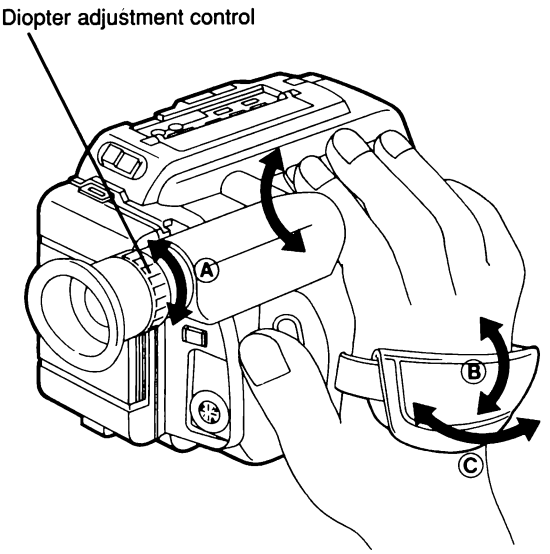
- If the AGE button is pressed before the DISPLAY ON/OFF button is pressed, "SET CLOCK & SET BIRTHDAY" will appear in the viewfinder. In such a case, proceed as follows.

[1] Follow the SETTING THE DATE/TIME and SETTING THE BIRTHDAY procedures.
[2] After all items have been set, press the DATE/TIME SELECT button, and blinking will stop. The Age will be displayed.

Correcting the data

- Press the DATE/TIME ON/OFF button or AGE button to display the data (item) to be corrected in the viewfinder.
- Data cannot be recorded while the data (item) is blinking during recording. It can be recorded after the setting has been completed.

BASIC PREPARATIONS



POSITIONING THE VIEWFINDER

The viewfinder can be positioned for best viewability.

DIOPTER ADJUSTMENT

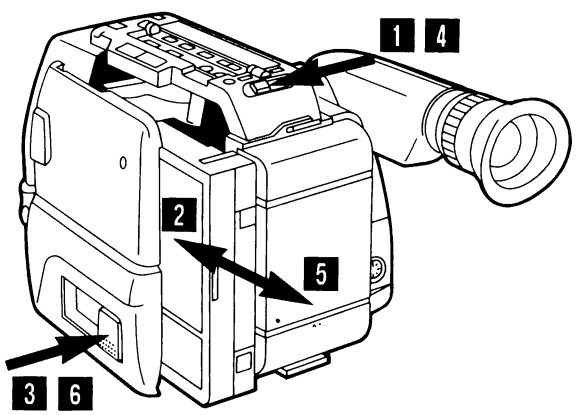
The viewfinder lens can be adjusted to suit the operator's eyesight by turning the diopter adjustment control (Ⓐ).

- First supply power, and engage the Rehearsal or Record-Pause mode.

ADJUSTING THE GRIP STRAP

1. Separate the Velcro strip to expand the loop (Ⓑ Ⓒ).
2. Pass your right hand through the loop and grasp the grip. Adjust the length of the strap to suit your hand size and refasten the Velcro strip.

LOADING AND UNLOADING A CASSETTE



LOADING

1. Open the cassette holder by sliding the EJECT switch.
2. Insert the cassette with its label facing outward.
3. Close the cassette holder by pushing the cassette holder lock button.

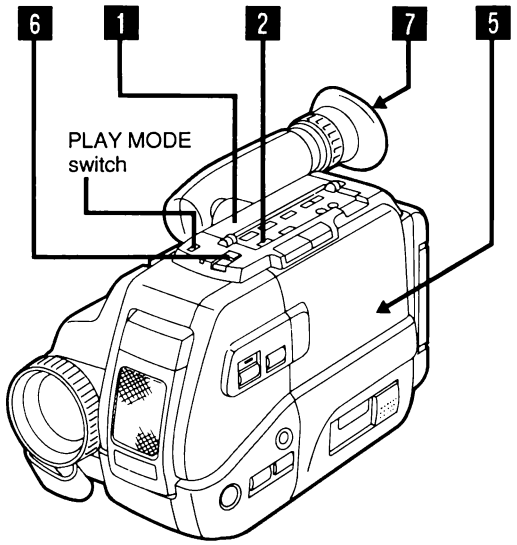
UNLOADING

4. Slide the EJECT switch. The cassette holder will open.
5. Remove the cassette.
6. Close the cassette holder by pushing the cassette holder lock button.

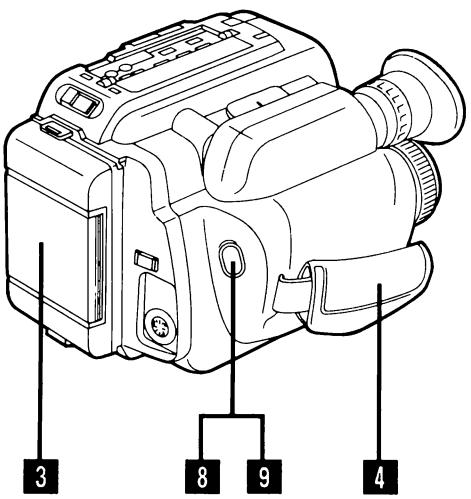
Notes:

- Ensure that tape is not slack inside the cassette, then load the cassette correctly. See page 30.
- Do not repeat loading and unloading of the cassette without running the tape, as this will slacken the tape, causing tape damage.
- The cassette holder can be opened even when the power is off.

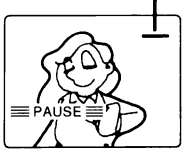
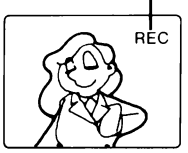
RECORDING OPERATION



1. Set the control panel cover to "CAMERA".
2. Set the SP/EP recording mode select switch as required.
3. Supply power. (Battery pack or AC power adapter or car battery cord. See pages 5 and 6.)
4. Adjust the grip strap. See page 9.
5. Insert a video cassette correctly. See page 9.
6. Slide the POWER switch to turn power on. The unit enters the Record-Standby mode. (The aimed-at scene will appear on the viewfinder screen.)
7. Determine the composition by referring to the viewfinder image.
8. Press the Recording Start/Stop button. The recording mode indication will appear and the recording starts.
9. To stop recording temporarily, press the Recording Start/Stop button once again.
   - To restart recording, press the Recording Start/Stop button.



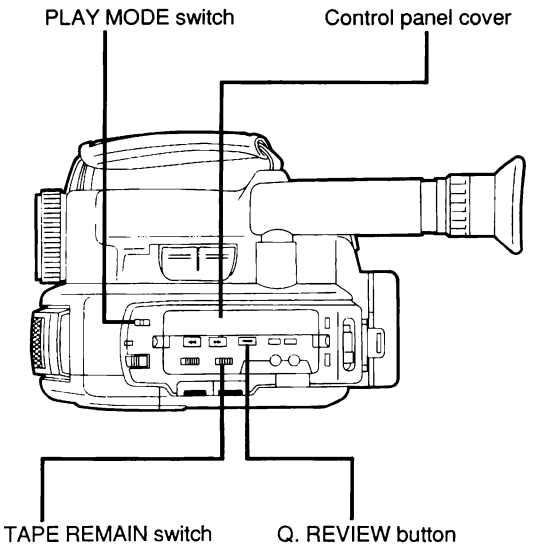
Viewfinder indications

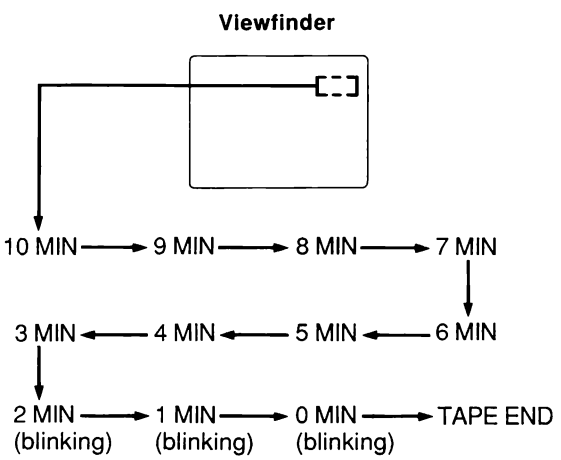
Record-Standby mode	Recording mode
"—" or "EP - -"	"REC" or "EP REC"
	

Notes:
- For a longer pause, slide the POWER switch to off to save power. (Do not engage "STOP" mode.)
- If the Record-Standby mode continues for longer than about 5 minutes, the unit switches itself off automatically. To restart recording, turn the power on and press the Recording Start/Stop button. This makes clean assembled recordings possible even after a long pause.
- Repeating steps 8 and 9 produces assemble recordings.
- To end recording, slide the PLAY MODE switch and set the control panel cover to "PLAY". After making sure that the tape has stopped, slide the POWER switch to off.

TRIGGER ALARM

An electronic alarm beeps when the Recording Start/Stop button is pressed to begin recording.
The electronic alarm beeps twice when the Recording Start/Stop button is pressed for record pause. This alarm helps prevent recording errors.





REHEARSAL

If you wish to rehearse shooting angles, compose scenes, etc., without actually recording on the tape, set the control panel cover to "CAMERA" (with no cassette loaded), and slide the POWER switch to ON. The scene you want to rehearse (the aimed-at scene) will appear on the viewfinder screen. To disengage the Rehearsal mode, slide the POWER switch or flip the control panel cover to "PLAY".

- The Rehearsal mode is automatically engaged when no cassette or a cassette without its safety tab is loaded.
- With a cassette loaded, rehearsal is not possible during rewind or fast forward.
- The power save circuit does not function during rehearsal. (For power save function, see page 13.)

QUICK REVIEW

- If you want to review the end of the last recording for confirmation, press the Q.REVIEW button from the Record-Standby mode; the tape will be rewound for about 2 seconds of program time and played back automatically for this section, after which it will stop in the Record-Standby mode for the next shot.

Note:

- Distortion might occur when playback starts. This is normal.

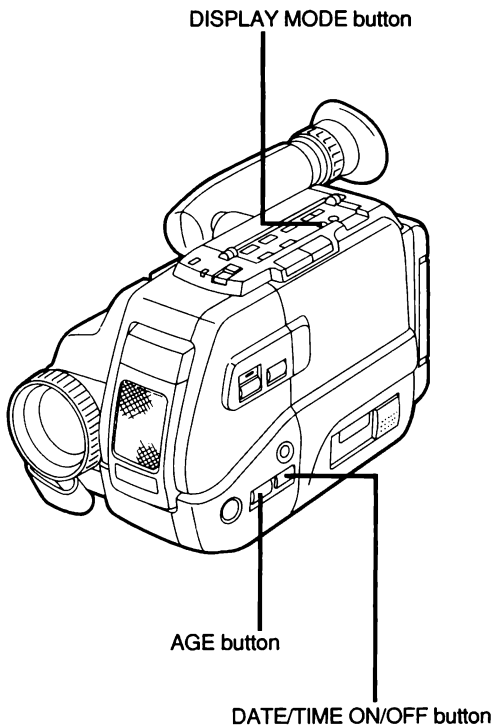
REMAINING TAPE TIME INDICATION

The remaining tape time is displayed in the viewfinder as shown.

- Set the TAPE REMAIN switch according to the tape used.
  - **TC-20:** When using a tape with 20-minute recording time (TC-20 type) or less.
  - **TC-30:** When using a tape with recording time of more than 20 minutes.

Notes:

- The indication will start blinking when the remaining tape time reaches 2 minutes.
- The indicated remaining time is approximate.
- The time required to calculate the remaining tape length and the accuracy of the calculation may vary according to the type of tape used.
- "TAPE END" indicator appears when the tape reaches its end. "TAPE END" indicator also appears when a cassette is loaded whose tape is already at its end.



Date/Time Recording Indications

Date/Time display	Date display	Time display
DEC.25.91 PM 11:59	DEC.25.91	PM 11:59

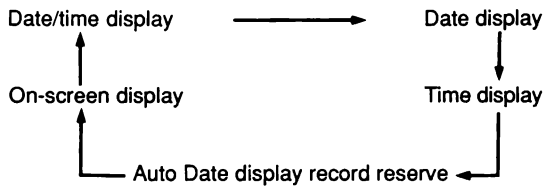
When the AGE button is pressed:

Date/Age display	Age display	Time/Age display
DEC.25.91 6Y11M	6Y11M	PM 11:59 6Y11M

AUTO DATE record	
AUTO DATE Auto date record mode	DEC. 31. 91 Auto date record executed

DATE/TIME RECORDING

The date/time can be displayed and recorded according to the selected mode. Press the DISPLAY MODE button to cycle through the modes in the following order:

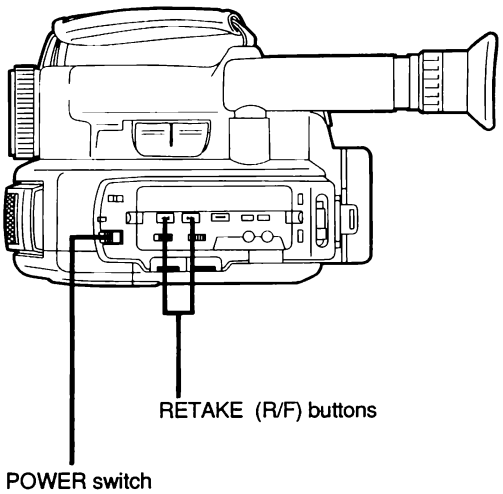


- When the auto-date-record function is selected, "AUTO DATE" appears in the viewfinder until recording begins. As long as this function is chosen, the date will be automatically displayed and recorded for about 5 seconds following the first operation of the Recording Start/Stop button after the cassette is replaced or the date changes.
- Auto date record reserve indication will cease to be displayed, if the DATE/TIME ON/OFF button is set to OFF.
- Pressing the AGE button once displays the AGE indication. Pressing it again restores the viewfinder to its previous indication. When the Date and/or Time indication is being displayed, the Date/Age or Date/Time indication will appear by pressing the AGE button.

ON-SCREEN DISPLAY

The viewfinder indications can also be displayed on the screen of a monitor connected to the VideoMovie.

- Connect the VideoMovie to a video monitor. Press DISPLAY MODE button to select the On-Screen Display mode. The viewfinder indications appear on the monitor screen. (See page 4.)
- The on-screen display is available in the Rehearsal or Record-Pause mode.



After viewing a recorded segment, you may decide to re-record it immediately. The Retake function is convenient for this.

1. Make sure the VideoMovie is in the Recording-Standby mode. (If not, engage the mode.)
2. Press either RETAKE (R/F) button to reach the point where you wish a new recording to start. When the RETAKE (R/F) button is released, the camera will enter the Record-Standby mode again.
3. Press the Recording Start/Stop button to start recording.

Note:
Noise may appear during Retake. This is normal.

ASSEMBLE RECORDING TECHNIQUES

[1] To replace the battery pack during recording

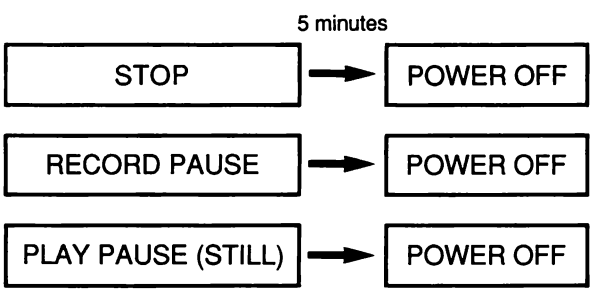
1. If the battery warning appears in the viewfinder while recording, stop recording by setting the POWER switch to OFF, not the STOP button.
2. Replace the battery pack with a charged one.
3. Set the POWER switch to ON.
   - The unit will be in the Record-Standby mode.
4. Press the Recording Start/Stop button to start recording.

[2] To record onto a partially recorded tape

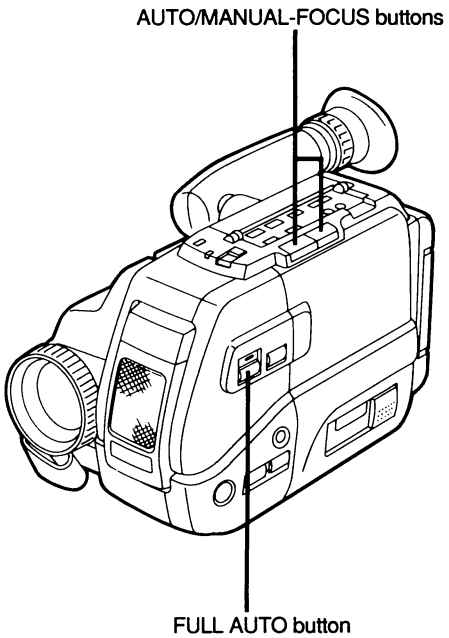
1. Play back the tape to a point where you wish a new recording to start.
   - Use the REW or FF button for faster location.
2. Press the PAUSE button at the located point.
   - The unit will enter the Still mode.
3. Set the control panel cover to "CAMERA". The VideoMovie will enter the Recording-Standby mode.
4. Press the Recording Start/Stop button to start recording.

POWER SAVE AND TAPE PROTECTION CIRCUIT

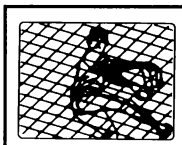
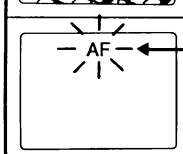
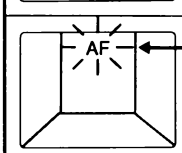
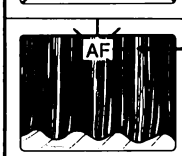
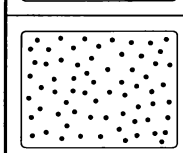
- To save power, the VideoMovie switches itself off automatically in the following situations:
  (1) When left for longer than 5 minutes in the Stop mode.
  (2) When left for longer than 5 minutes in the Record-Standby (Record-Pause) mode.
- To protect the tape, the VideoMovie (regardless of whether battery-operated or AC-powered) switches itself off automatically if left for longer than 5 minutes in the Record-Standby (Record-Pause) mode.
- For the same reason, the VideoMovie enters the Stop mode if left for longer than 5 minutes in the Still (Play-Pause) mode.



ADVANCED VIDEOGRAPHY TECHNIQUES



- Correct focus may not be obtained in the following situations. In such case manual focusing should be performed to obtain proper focus.

	Two subjects at different distances overlap in the same scene.
	Low illumination.
	The subject has no contrast (differences in brightness and darkness), such as a flat, one-color wall, or a clear, blue sky, for instance.
	Low-contrast warning. A dark object is barely visible in the viewfinder.
	Minute patterns or identical patterns that are regularly repeated.

1 FOCUSING

Auto-focus

As in most VideoMovies, center of the picture is the focus detection zone.

CAUTION

- When not in use, do not leave the VideoMovie in the Auto Focus mode with power on; otherwise light entering the lens will operate the auto-focus mechanism, consuming power.

Note:

- If the lens is smeared with stains or blurred with condensation, accurate focusing is not possible. Keep them clean. If they become dirty, wipe with a piece of soft cloth. When condensation occurs, dry them by wiping with a soft cloth or wait for conditions in which they become dry.

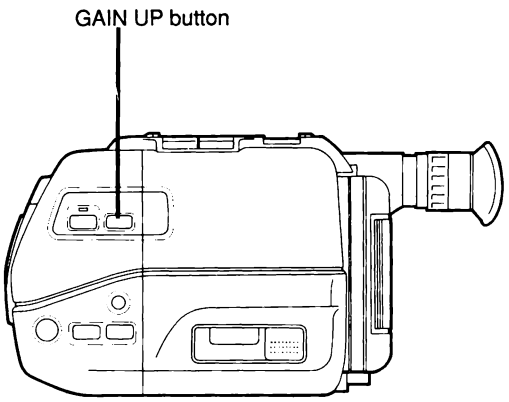
Manual focus

For manual focus operation, proceed as follows:

1. Press the AUTO/MANUAL-FOCUS buttons simultaneously to release the Auto Focus mode. The Manual Focus indication appears in the viewfinder.
2. Zoom in on a subject by pressing the "T" button.
3. Focus onto it by pressing either AUTO/MANUAL-FOCUS button.
4. Determine the composition by pressing the "W" button.

Notes:

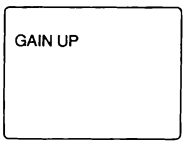
- To release the Manual Focus mode (to engage the Auto Focus mode), press the AUTO/MANUAL-FOCUS buttons simultaneously, or FULL AUTO button.
- When you use the Manual Focus mode, be sure to focus the lens in the maximum telephoto position. If you focus in on a certain subject in the wide-angle position, sharply-focused images cannot be obtained when zoomed up because the depth- of-field is reduced at longer focal lengths.



2 GAIN-UP

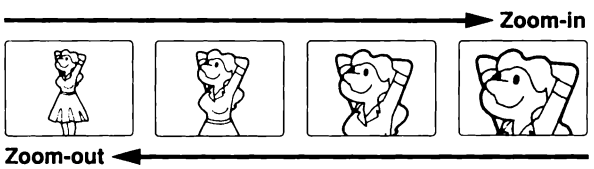
If lighting is or becomes insufficient while shooting, use the Gain-Up function to record dim scenes brighter.

1 Press the GAIN UP button, the Gain-Up mode is engaged and "GAIN UP" appears in the viewfinder.



2 To release the mode, press the GAIN UP button again.
- Pressing the FULL AUTO button also releases the Gain-Up mode.

Notes:
- The scene recorded using the Gain-Up function looks grainy.
- The Gain-Up function is generally not effective when shooting in bright places.

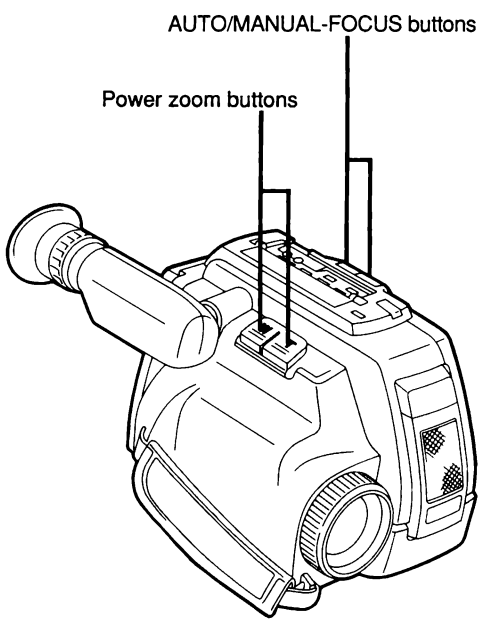


3 ZOOMING

When the focal length of the lens is varied by pressing the power zoom buttons, the image appears to come nearer to or retreat from the viewer.

Procedure
- Press "T" for zooming in and "W" for zooming out.

Notes:
- Focusing may become unstable during the zooming-in operation. In this case, first zoom in in the Recording Standby mode then, after pressing the AUTO/MANUAL-FOCUS buttons simultaneously to hold the focus fixed, zoom in or out in the Record mode.
- When shooting low-contrast subjects in the Zoom-in mode, the Videomovie automatically zooms out with the low contrast indicator blinking and focus being performed.



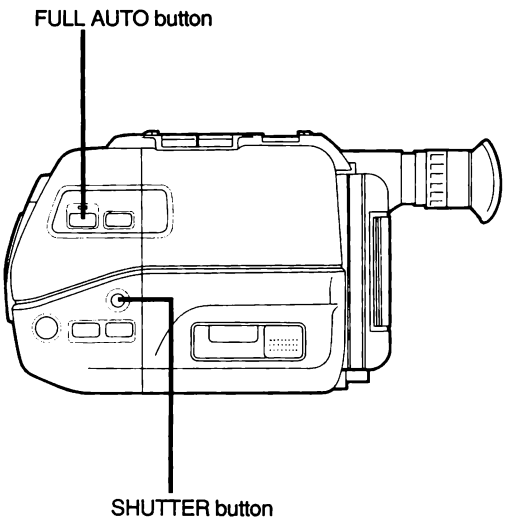
4 MACRO SHOT

The VideoMovie's Full Range AF system can offer continuous shooting ability from close-up to infinity.

Procedure for Macro shooting

1 Press the "W" power zoom button until the lens zooms out completely.

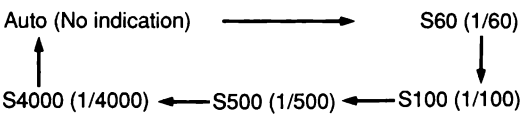
2 Position the subject in auto-focus detection zone.
- For best results, increase illumination when shooting in the Macro mode.



5 MULTIPLE-SPEED ELECTRONIC SHUTTER

The VideoMovie is equipped with a selectable high-speed shutter that allows better recording of quick movements for sharp, clear stills or slow-motion playback.
Select it when taping fast-action shots that you will want to play back later on a VCR equipped with the Still or Slow-motion mode.

1. Press the SHUTTER button to switch to the desired electronic shutter speed. This can be done while Recording or in any other mode. It continues at the selected speed until switched to another speed.
2. Select the shutter speed among 1/4000, 1/500, 1/100, 1/60 and Auto (1/60 or 1/100) second by pressing the shutter speed changes in the following order:



- When selected, the High-Speed Shutter mode is indicated on the viewfinder screen.
- In the Auto mode, usually the shutter speed is set to 1/60 sec., but changes to 1/100 sec. whenever flickering caused by light sources such as fluorescent lamp is detected.

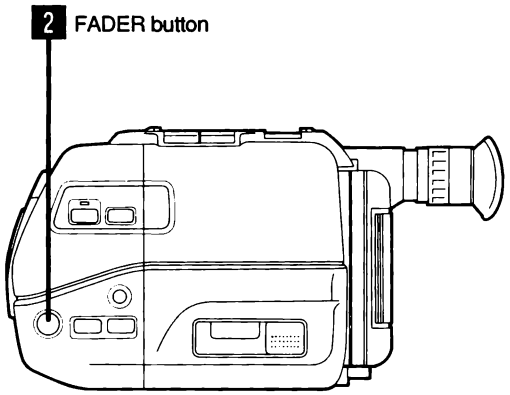
3. When finished recording the fast-action scene, switch back to the standard shutter speed by pressing the SHUTTER button until the SHUTTER indicator in the viewfinder disappears.

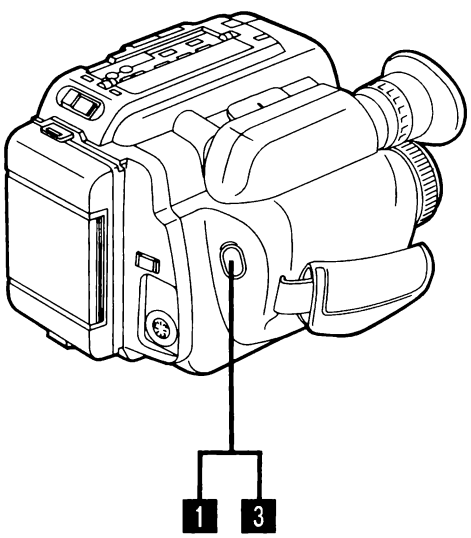
Notes:

- The High-Speed Shutter mode requires slightly more subject illumination than the Auto or S60 Shutter mode. Therefore, the low-contrast warning may blink in the viewfinder. If so, switch to the Standard Shutter mode.
- Picture color may be adversely affected in the High-Speed Shutter mode when the subject is lit by alternating discharge-type light sources such as fluorescent or mercury-vapor lights.
- When playing back a section recorded in the High-Speed Shutter mode, movement of subjects in the picture may not be smooth. This is not due to any defect of the unit.
- Pressing the FULL AUTO button also restores the shutter speed to the Auto mode.

6 FADER

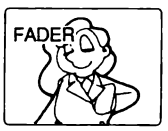
The VideoMovie incorporates a fader function which allows smooth video fade-in and fade-out with a white blank screen. The fader is simultaneously activated with the Recording Start/Stop button operation.



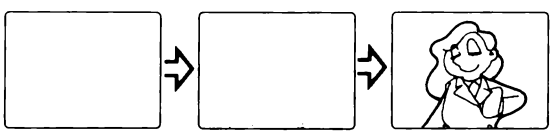


FADE-IN

1. Aim the VideoMovie to the subject in the Record-Standby mode.
2. Press the FADER button to engage the Fade-Standby mode. "FADER" appears on the viewfinder screen.

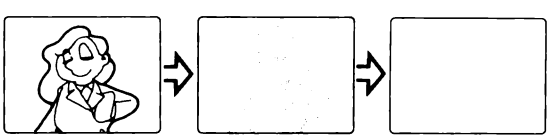


3. Press the Recording Start/Stop button. The screen immediately becomes blank and recording begins. Fade-in starts at the moment the Recording Start/Stop button released. "FADER" in the viewfinder blinks until the fade-in is completed. If the button is not released, the screen will remain blank and be recorded (with audio) as long as the button is kept pressed.



FADE-OUT

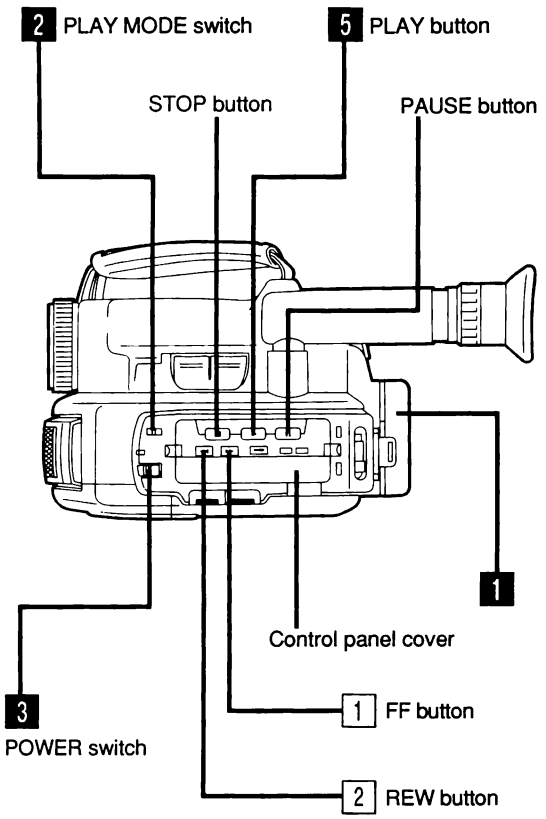
1. Start shooting as usual.
2. Press the FADER button to engage the Fade-Standby mode. "FADER" appears on the viewfinder screen.
3. Press the Recording Start/Stop button. The viewfinder indications start blinking. Fade-out starts and will be completed in about 4 seconds. When completed, the VideoMovie enters in the Record-Standby mode automatically. At this time, if the button is not released, the screen will remain blank and be recorded as long as the button is kept pressed.



Notes:

- Viewfinder indication ("FADER") is not recorded.
- Sound is not faded. If you want sound fading, dub the recording with a VCR.

PLAYBACK



The VideoMovie permits playback of recorded "VHS-C" video cassettes.
For connections refer to pages 21 and 22.

Preparations

- With a television equipped with audio/video input connectors, engage the Video (or AV) mode of the television.
- With a regular television, set the antenna select switch of the RF-V3U RF unit to VIDEO and the television's channel selector to your video channel (specified AV channel).

1 Connect a power supply unit. (Battery or AC operation: see pages 5 and 6.)
2 Slide the PLAY MODE switch. The control panel cover flips to "PLAY".
3 Slide the POWER switch to turn power on.
4 Insert a pre-recorded VHS-C cassette.
- Ensure that tape is not slack inside the cassette, then load the cassette correctly. See page 30.

5 Press the PLAY button. Playback will start.
- To stop playback, press the STOP button.

STILL PLAYBACK

Press the PAUSE button during playback. The picture will stop on the screen.

- After about 5 minutes of still playback, the VideoMovie enters the Stop mode automatically for tape protection and switches itself off.

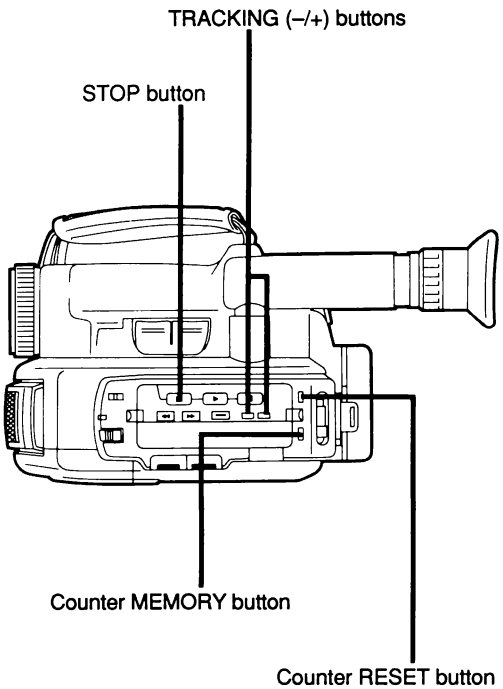
SHUTTLE SEARCH

[1] Fast-speed playback in the forward direction:
Press the FF button in the Play mode. Playback will be speeded up to 3 times normal speed in the SP mode, 7 times in the EP mode.

[2] Fast-speed reverse playback:
Press the REW button in the play mode. The tape will be played back in the reverse direction at 3 times normal speed in the SP mode, 7 times in the EP mode.

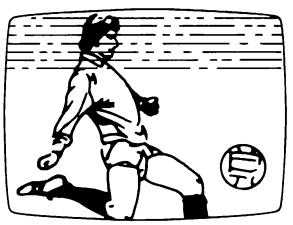
Notes:

- For brief fast-speed searching, keep the FF or REW button pressed for more than 2 seconds; when you release the button, the Search mode will be cancelled.
- Noise bars will appear and pictures may become monochrome while in these modes. This is not due to any defect of the unit.



TRACKING ADJUSTMENT

Adjust the tracking when noise bars appear on the screen during playback.



1. Press either TRACKING (+/–) button to reduce the noise bars.
2. When re-engaging the preset tracking standard, press both TRACKING (+/–) buttons.

Note:

- For tapes recorded on another deck, tracking adjustment might not be effective.

COUNTER MEMORY FUNCTION

The VideoMovie incorporates a counter memory function which facilitates locating a specific tape segment.

1. Press the RESET button to reset the counter to "0000".
2. Press the MEMORY button. The "M" mark will appear.
3. After recording or playback, press the STOP button, then the REW button. The tape will automatically stop at the counter reading of around "0000".
4. Press the PLAY button to start playback.

Notes:

- The counter memory function is effective in the Fast Forward mode as well.
- To cancel the memory function, press the MEMORY button.

USING THE CASSETTE ADAPTER

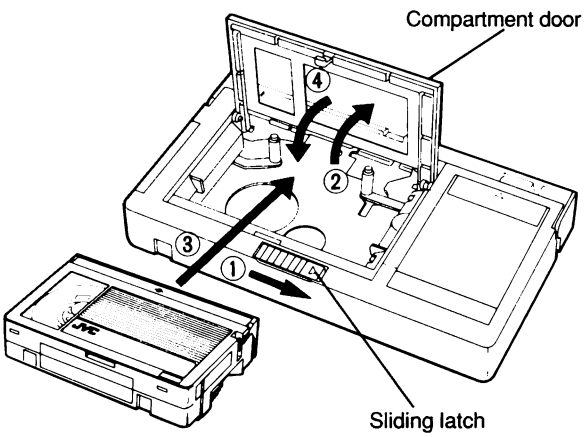
By using the provided Cassette Adapter, a VHS-C video cassette recorded with this VideoMovie can be played back with any deck-type VHS video recorder. Also, a VHS-C video cassette installed in the cassette adapter is fully compatible for both recording and playback on any deck-type VHS video recorder.

Note:

- Only compact video cassette tapes marked VHSC can be used with the Cassette Adapter.

- **C-P6U Cassette Adapter**

Being battery-operated, the C-P6U performs tape loading and unloading automatically.



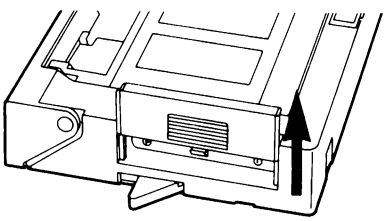
VHS compact cassette

Note:

- During special-effects playback (slow motion, still frame, etc.) the picture may vibrate or noise bars may appear on the screen.

Inserting the battery into the cassette adapter

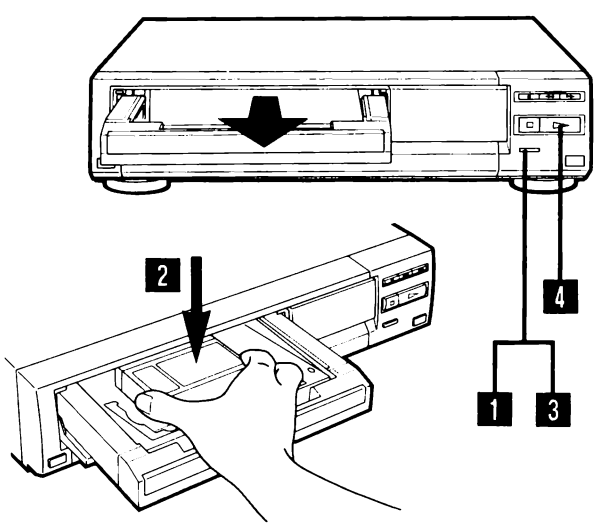
1. Remove the battery cover by sliding it up.
2. Install one "AA/R6" battery and reattach the cover.



USING THE VHS/VHS-C COMPATIBLE VCR

A VHS/VHS-C compatible VCR can directly play back a VHS-C cassette without using a cassette adapter.

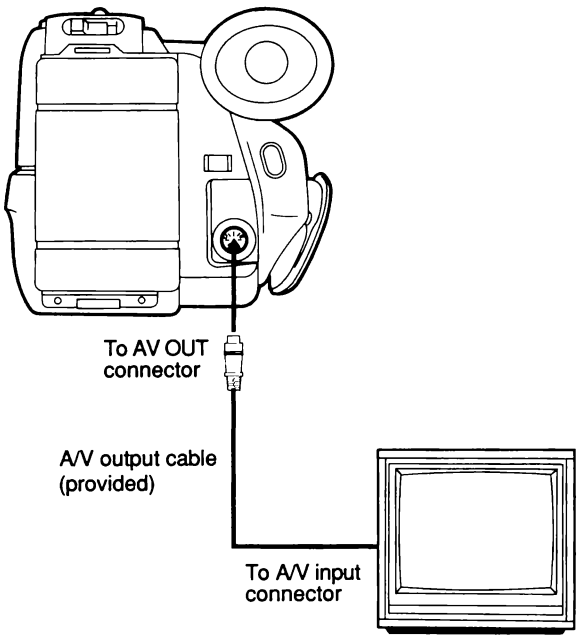
(VHS/VHS-C compatible VCR such as the JVC HR-FC100U)



1. Press the OPEN/CLOSE button.
2. Place a cassette on the tray.
3. Press the OPEN/CLOSE button again.
4. Press the PLAY/x2 button. Playback starts.

- When using a VHS/VHS-C compatible VCR, read the instruction manual of the VCR carefully.

CONNECTIONS TO A TELEVISION FOR PLAYBACK



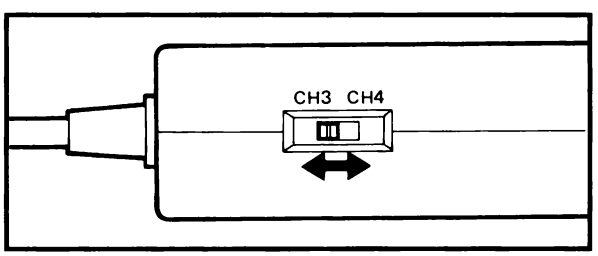
1 Connection to a television equipped with A/V input connector

In this situation, use the provided A/V output cable.

- Simply connect the AV OUT connector of the VideoMovie to the A/V input connector of the television.

2 Connection to a television not equipped with A/V input connector

Side view

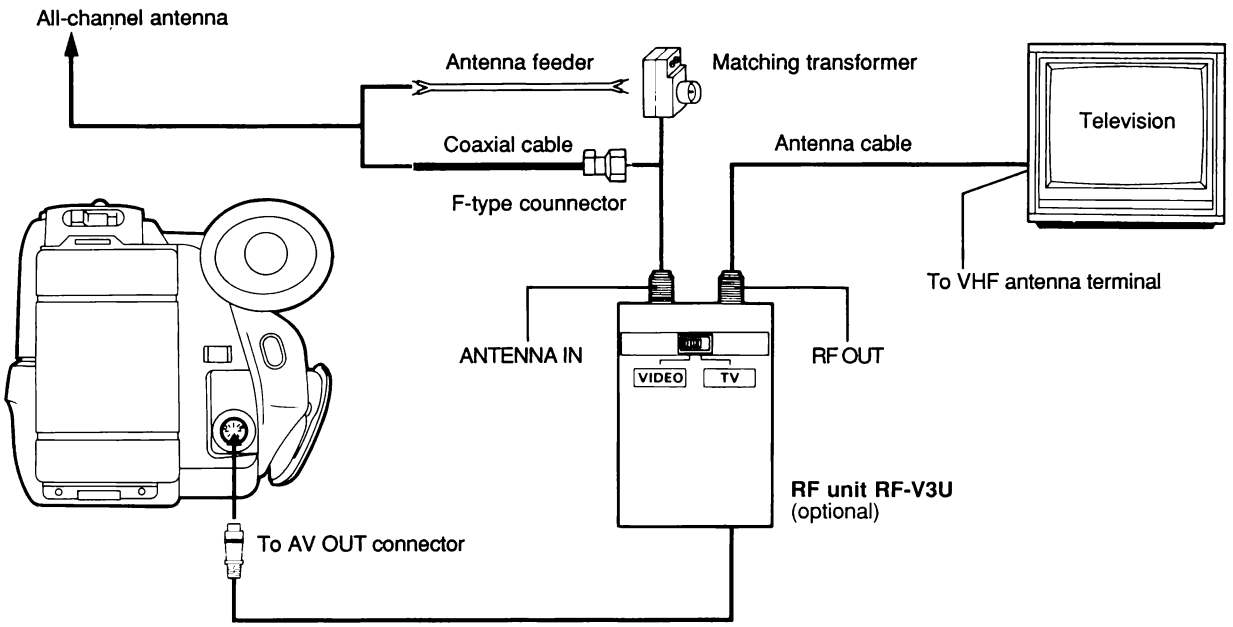


In this situation, use the RF unit.

1. Set the out put channel select switch of the RF unit to CH3 or CH4.
   - The RF unit permits playback of the video and audio recordings through a TV receiver. The signals from the RF unit are viewed through a vacant channel not used for broadcasting in your area.
   - The RF unit has been set to CH3 prior to shipment. Reset the channel to CH4 (using a screwdriver) in areas where channel 3 is employed for broadcasting.
   - This is your video channel. To view video cassettes, always set the TV channel selector to either channel 3 or 4.
2. Remove the antenna cable from the TV receiver.
3. Connect the antenna cable to the ANTENNA IN terminal of the RF unit.
   - Refer to the connection diagram on the next page.

PRECAUTIONS FOR RF UNIT

- For exclusive use with the VideoMovie.
- Do not disassemble or remodel the RF unit.
- Do not expose it to strong shocks.
- Unplug the connected equipment during lightning storms. (Never touch the antenna cable.)



4 Connect the RF OUT terminal of the RF unit to the 75-ohm coaxial antenna terminal of the television using the provided antenna cable.
5 Connect the VIDEO/AUDIO INPUT cable of the RF unit to the AV OUT connector of the VideoMovie.

OPERATION

Viewing video cassettes being played back with the VideoMovie

To view video cassettes or to monitor the recording, set the VIDEO/TV switch of the RF channel selector to the channel corresponding to the RF-output channel (3 or 4).

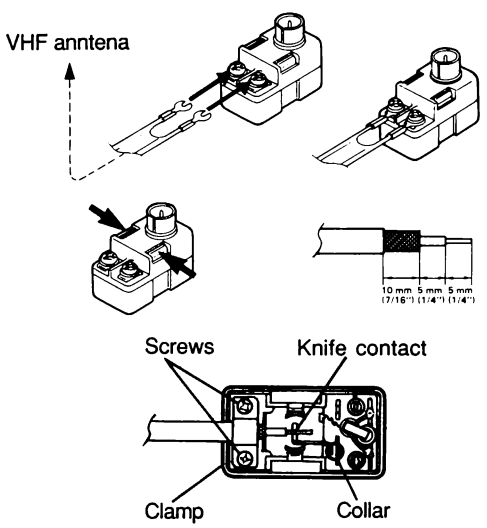
Viewing television programs

Set the VIDEO/TV switch to TV, and the TV receiver will function as usual.

How to affix the matching transformer to your VHF antenna cable

- If your VHF antenna cable is a 300-ohm flat feeder, connect the two lugs to the screws in an ordinary manner.
- If your VHF antenna cable is a 75-ohm coaxial cable, proceed as follows:

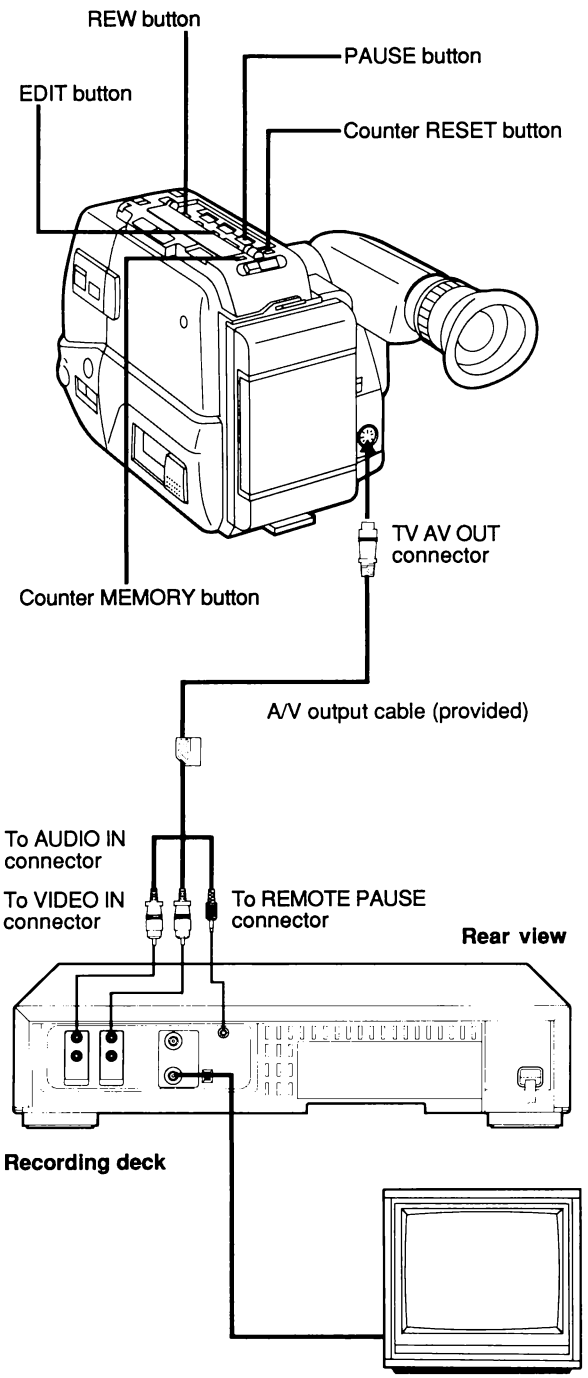
1 Press both side tabs inward and slide the cover off.
2 Strip the coaxial cable with a pair of wire strippers, a knife, or the like as shown.
3 Remove the collar and put it on the pole inside the cover.
4 Loosen the screw for the clamp and insert the stripped cable so that the braided portion is positioned under the clamp.
5 Inset the stripped end (core conductor) of the cable from above into between the knife contacts.
6 Tighten the screws.
7 Replace the cover.



EDITING TECHNIQUES

1 MASTER EDIT CONTROL SYSTEM (Assemble Editing) (When using a JVC VCR equipped with a Remote Pause terminal)

This feature functions only when using a designated JVC VCR equipped with a Remote Pause terminal. The Master Edit Control system enables control of the VCR via the VideoMovie's controls, for quality preroll editing without transition-point gaps and distortion.



Preparation

- Connect the VideoMovie and the recording deck as in the diagram on the left.
- Turn on both the VideoMovie and the recording deck.
- Correctly insert the appropriate cassettes into the VideoMovie and the recording deck.

1. Engage the recording deck's Record-Pause mode. (At this time, the tape in the deck winds backward for 1.3 seconds.)
2. Engage the VideoMovie's Play mode to locate the edit-out point on the tape. When this point is reached, press PAUSE.
3. Press Counter RESET on the VideoMovie then press Counter MEMORY. "M, 0000" will appear in the viewfinder.
4. Press REW to locate the edit-in point. When it is reached, engage the Still mode.
5. Press EDIT on the VideoMovie to start editing.
   - At this time, the VideoMovie and the recording deck carry out the following procedure automatically.
     1) The VideoMovie prerolls the tape for 5 seconds then starts playback to stabilize the tape run.
     2) After the VideoMovie has played back for 3.7 seconds, it sends a command signal to the recording deck. The deck then starts playback together with the VideoMovie for 1.3 seconds.
     3) When the VideoMovie's tape reaches the edit-in point, the deck starts recording in synchronization with it.

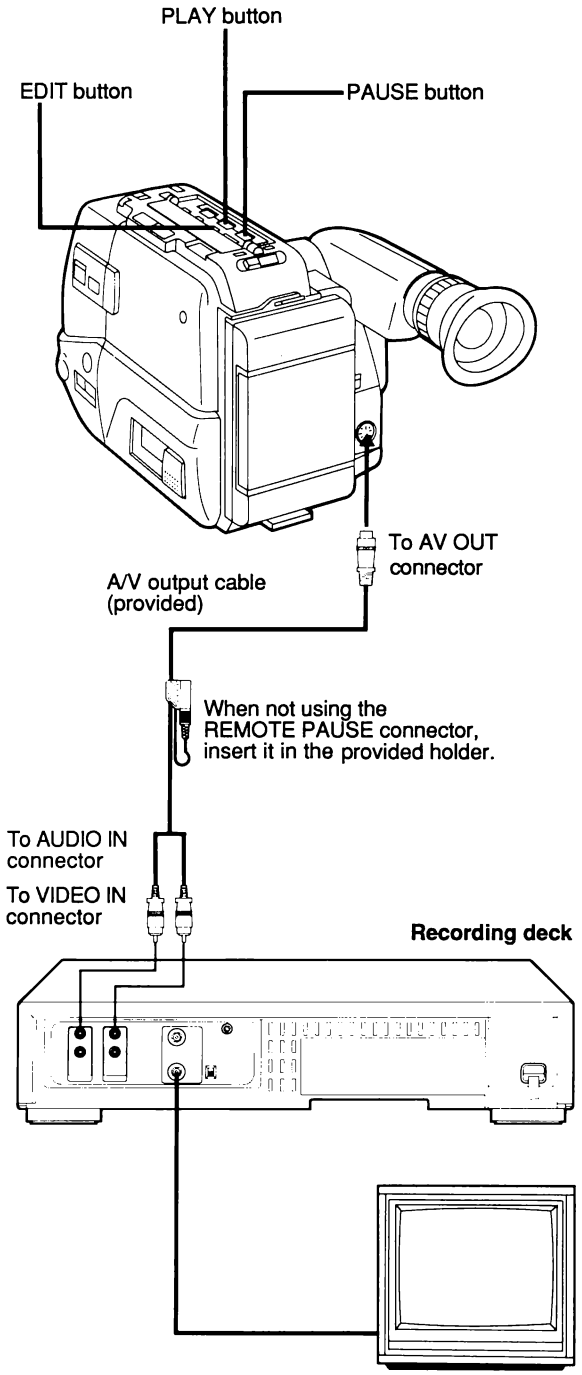
Note:

- There are some VCRs which are not compatible with the Master Edit Control system.

7. When the VideoMovie's tape reaches the edit-out point (counter reading of "0000"), the VideoMovie enters the Still mode and the recording deck enters in the Record-Pause mode automatically.
   - Repeat these steps as required.
   - When the tape reaches the preset edit-out point during the dubbing operation, it may stop slightly before or after the designated point on the tape.

2 TAPE DUBBING (Dubbing to a second recorder)

In order to perform simple dubbing of an entire tape, proceed as follows.


PLAY button
EDIT button
PAUSE button
To AV OUT connector
A/V output cable (provided)
When not using the REMOTE PAUSE connector, insert it in the provided holder.
To AUDIO IN connector
To VIDEO IN connector
Recording deck

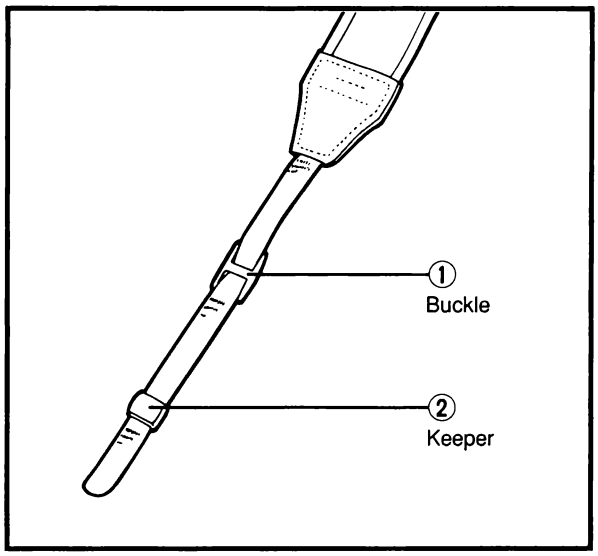
Preparations

- Make connections according to the diagram on the left.
- Turn on all components' power.
- Correctly insert the appropriate cassettes.

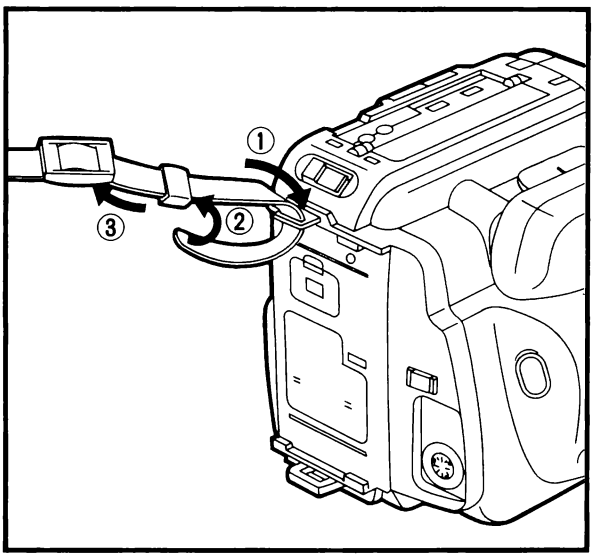
1. Engage the connected recorder's Record-Pause mode, and press the VideoMovie's PLAY and PAUSE buttons to engage its Pause mode.
2. Press the VideoMovie's PLAY button and engage the connected recorder's Recording mode to start dubbing. (The VideoMovie starts playback; the recorder starts recording.)
3. To edit out unwanted material, engage the recorder's Record-Pause mode.
   - If using with a JVC VCR equipped with a Remote Pause terminal, perform as follows:
     1) Make connections according to the diagram on the left.
     2) Engage the connected recorder's Record-Pause mode.
     3) Press the EDIT button of the VideoMovie. The deck's recording begins in synchronization with the VideoMovie's playback start.
   - When using the VideoMovie as a player for tape dubbing, pressing the EDIT button automatically activates a built-in circuit that helps prevent picture deterioration of the dubbed recording.

USING ACCESSORIES

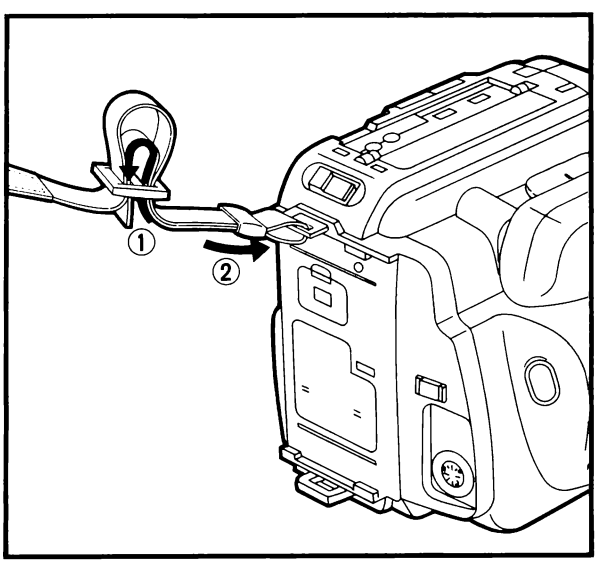
ATTACHING THE SHOULDER STRAP (provided)



1 Slide the strap buckle and strap keeper off the end of the strap. Replace them on the strap: the buckle first ①, then the keeper ②.

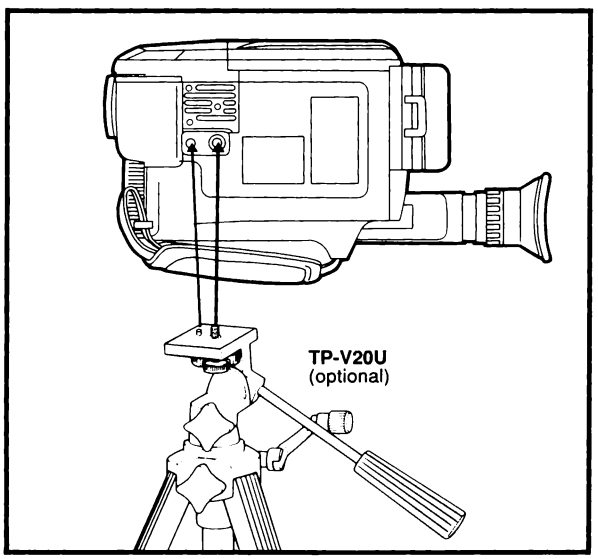


2 Loop the end of the strap over the top of the eyelet ①, then, folding it back, thread the end of the strap first through the keeper ②, then the buckle ③. Making sure that the strap is not twisted, repeat the above procedure to attach the other end of the strap to the other eyelet.



3 Adjust the shoulder strap to the desired length ①, then slide both keepers up snug against the eyelets to prevent the strap from slipping ②.

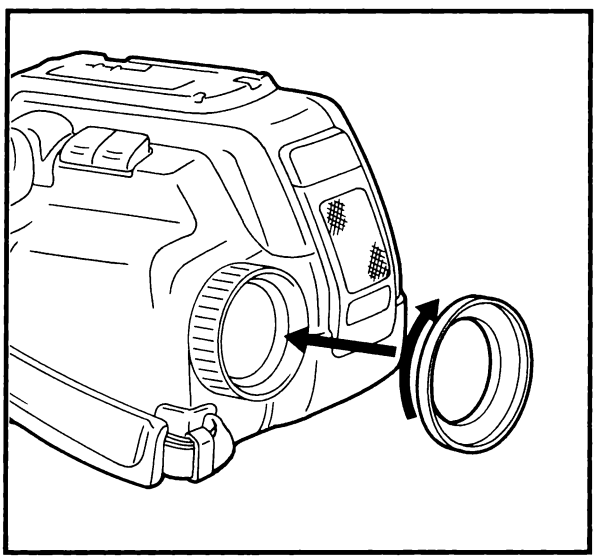
TRIPOD MOUNTING



Align the screw and camera direction stud of the tripod with the camera's tripod mounting socket and stud hole, and firmly tighten the screw.

ATTACHING THE STEP-UP RING (provided)

For attaching an ND filter, etc.

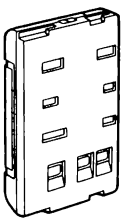


To attach the step-up ring, screw it onto the lens. The lens cap cannot be attached when the step-up ring is in use.

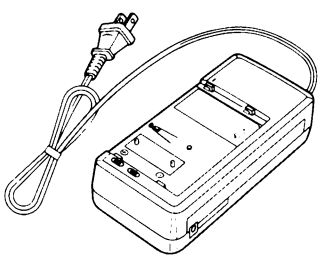
SYSTEMS FLEXIBILITY

For maximum enjoyment, make the most of the provided or optional accessories depending on the situation.

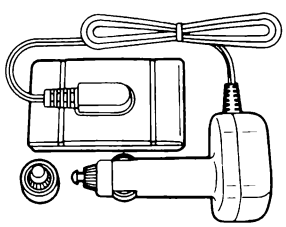
- **High-capacity battery pack BN-V14U**
- **Super-high-capacity battery pack BN-V22U**



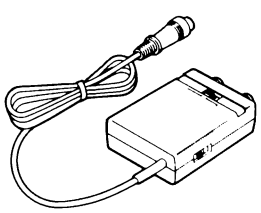
- **AC power adapter/battery charger AA-V3U**
  Use to power the VideoMovie with household AC current or charge the battery pack.



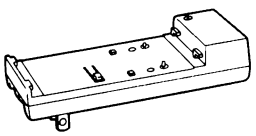
- **Car battery cord AP-V6U**
  Use to power the VideoMovie using a car battery.



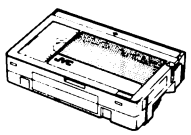
- **RF unit RF-V3U**
  Use to connect the VideoMovie to a regular television for playback.



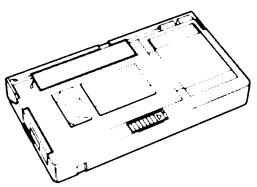
- **Battery charger BH-VC10U**
  Use to charge the battery pack.



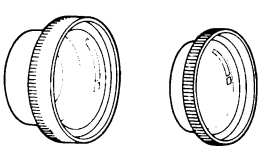
- **VHS-C cassettes TC-30/20**
  Allows 30/20 minutes of VHS recording and playback respectively.



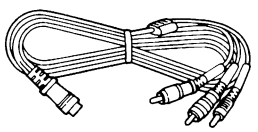
- **Cassette adapter C-P6U**
  Enables the VHS-C cassette to be used with regular VHS machines.



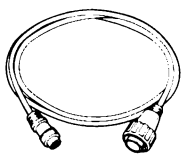
- **Conversion lens kit GL-V6U**
  Consists of telephoto (1.4x) and wide-angle (0.7x) conversion lenses.



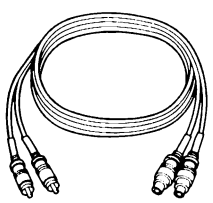
- **A/V output cable VC-V826U**
  Use to connect VideoMovie to a television equipped with audio/video input connectors for playback, or to a VCR for dubbing or editing.



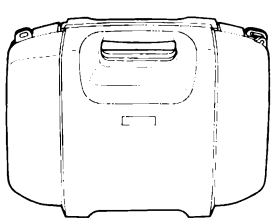
- **Conversion cable VC-V810U**
  For connecting the VideoMovie to a VCR equipped with a 10-pin camera connector.



- **A/V extension cable VC-P1U**
  For connecting the VideoMovie to a video equipment over a distance.



- **System carrying case CB-V36U**
  Use to carry the VideoMovie together with accessories.



SUPPLEMENTAL INFORMATION

What is "color temperature"?

Light is composed of various color components in different proportions. A relationship exists between the temperature of a light source and the color components of the emitted light; as the temperature rises, the color of the light varies from red, orange, yellow, white to blue in that order. "Color temperature" is a value that expresses differences in color among light sources, measured in Kelvin degrees. Bluish light has a higher color temperature than reddish light.

What is "white balance"?

Making the colors look natural on TV is what white balance is all about. Because a camera is not as adaptable as the human eye, if a light source is reddish, white subjects in that light are recorded as reddish. White balance adjustment is performed to compensate for color temperature variations of light so that whites are reproduced as white. Correct white balance makes all other colors correct. The VideoMovie can perform automatic white balance adjustment. However, if illumination is insufficient, white balance adjustment cannot be performed. To obtain correct colors, therefore, sufficient illumination is essential.

What is "illuminance"?

"Illuminance" (also called "luminance") is the intensity or brightness of light, expressed in lux. The VideoMovie is designed to provide best pictures under the conditions of a 700-lux (67 fc) illuminance, although shooting is possible all the way down to 1 lux (0.1 fc). To obtain good pictures in very bright light, the use of an ND (neutral density) filter is recommended. (See chart on the right.)

How to get good color pictures.

The simplest way is to provide sufficient lighting (close to the camera's reference illuminance) and accurately adjust the camera to the color temperature of that lighting. If light sources of different color temperatures are used together, accurate white balance adjustment is very difficult. For example, if natural light is mixed with artificial light, which is likely to occur next to windows, correct colors of the subject are difficult to obtain. It is recommended in such cases that curtains in the room be closed to shut out light from outside. Also, when artificial lighting devices are used, they should all have the same color temperature. For example, it is recommended that incandescent or halogen lamps not be used together with fluorescent lighting.

Color temperatures of various artificial lighting

Type of illumination		Color temperature
Tungsten lamp for home use		2800 K
Tungsten lamp for photographic use		3200 K
Quartz-halogen lamp		
Blue lamp for photographic use		5000 K
Fluorescent lamp	Warm white	3500 K
	White	4500 K
	Daylight type	6500 K

Illuminance chart

- The values on this chart are approximated to give you a rough reference.

	Unit: Lux (fc)	
ND filter desired	100,000 (9,300)	• Clear sky, mid-day, under sunlight 100,000 (9,300) • Clear sky (10:00 a.m.) under sunlight 65,000 (6,045) • Clear sky (3:00 p.m.) under sunlight 35,000 (3,255) • Cloudy sky (mid-day) under sunlight 32,000 (2,976) • Cloudy sky (10:00 a.m.) under sunlight 25,000 (2,325)
Range for practical use	10,000 (930)	• By the window during the afternoon 3,500 (324)
	2,000 (190)	• Cloudy sky (one hour after sunrise) 2,000 (190)
	1,000 (94)	• Clear sky (one hour before sunset) 1,000 (94)
	600 (55)	• Counters at department stores 500–700 (47–66)
	500 (47)	• Bowling center 500(47) • Office under fluorescent light 400–500 (37–47) • Library 400–500 (37–47) • Direct light of a flashlight at 1 m (3ft) distance 250 (22.7)
Lighting desired	100 (9)	• Streetlight at night 150–200 (13.5–18)
	80 (7.3)	
	Minimum lighting for an object	
	15 (1.4)	• Cigarette lighter(at a distance of 30 cm/11.8 in.) 15 (1.4)
	10 (1)	• Candlelight(at a distance of 20 cm/7.9 in.) 10–15 (1–1.4)

CAUTIONS

For safety, strictly observe the following instructions.

- Do not open the cabinet.
- Prevent inflammables, water and metallic objects from entering the unit.
- Do not disassemble or modify the unit.
- Do not use the unit when there is lightning in the vicinity. Disconnect the power cable of connected equipment.

Avoid using the unit under the following conditions:

- Places subject to excessive humidity or dust.
- Near appliances generating strong magnetic or electric fields (speakers, broadcasting antennas, etc.).
- Places subject to soot or steam such as near a cooking stove.
- Places subject to excessive shock or vibration.
- Near a television set (rolling pictures or howling might result).
- Extremely hot places.

Do not expose the unit to high temperatures over 40°C (104°F) for long periods.

If the unit should be subjected to direct sunlight, or left in a closed car in summer, or placed near a heater, the CCD and the auto-focus sensor may deteriorate and the cabinet may become deformed. Furthermore, this also may cause the transistors and other electronic and mechanical parts to malfunction. Remember the following:

- Do not leave the unit in places of over 50°C (122°F).
- Do not use the unit in places of over 40°C (104°F).
- Do not use the unit in places of below 0°C (32°F).
- Protect the unit from excessively dry or humid conditions (below 35% or above 80% humidity).
- For long storage, select a place between –20°C (–4°F) and 30°C (86°F).

Take special care for protection of the unit.

- Do not allow the unit to become wet.
- Do not leave the unit in closed cars on hot summer days.
- Take special care not to drop the unit or strike it against hard objects. Protect from shocks during transportation.

Make it a rule to observe the following instructions.

- Do not remove the battery pack or disconnect other power supply units while the POWER switch is set to ON. If not observed, this will cause tape damage and missoperation.
- When the unit is not in use, remove the battery pack.

Keep the lens and viewfinder eyepiece always clean.

- When the lens if dirty or dusty, blow it off first and then gently wipe with a soft brush or lens cleaning paper.
- The lens is likely to become moldy if left dirty.

Be careful not to damage the CCD.

- Do not keep the lens directed at extremely bright objects such as the sun or other light sources for long periods. Although the CCD is less susceptible to such burn than a tube would be, caution should be exercised when using this unit. Most importantly, the lens should be capped except while actually shooting.
- Do not direct the eyepiece of the viewfinder at the sun.

Handle the unit carefully.

- Protect the microphone from excessive shocks.
- Do not carry the unit by holding it only by the viewfinder.

Moisture condensation.

- You have observed that pouring a cold liquid into a glass will cause drops of water to form on the glass's outer surface. This same phenomenon occurs on the head drum of a VideoMovie when it is moved from a cool place to a warm place, after heating a cold room, under extremely humid conditions or in a place directly subjected to the cool air from an air conditioner.
- Moisture on the head drum can cause severe damage to the video tape, and can lead to internal damage to the VideoMovie itself.
- If moisture condensation occurs on the head drum, a condensation warning appears in the viewfinder and the unit enters the Stop mode, unable to function. In such a case, wait for a few hours until the indicator disappears.

Maintenance

- When the cabinet is dusty, clean by gently wiping with a soft cloth.
- Avoid the use of strong cleaning agents such as benzine or alcohol as they may damage the cabinet.
- Cleaning should be done only after the battery pack has been removed or other power units have been disconnected.

Serious malfunctioning

If malfunctioning occurs, stop using the unit immediately and consult your local JVC dealer.

General Battery Precautions

- When the C-P6U (provided) is not functioning even when correctly operated, the battery is exhausted.

Replace it with fresh battery.

- Use only following batteries in the unit.
  - C-P6U ..... AA/R6 size.

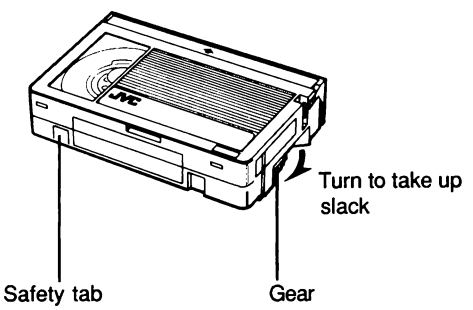
Please make note of the following rules for battery use.

When misused, batteries can leak or explode.

1. Insert the batteries correctly according to the diagram inside the battery section.
2. Do not use old and new batteries together.
3. Do not use two different kinds of batteries. Although sizes may be the same, voltages may differ.
4. Do not expose batteries to excessive heat as they can leak, or explode. Do not dispose of batteries in a fire.
5. Remove batteries from the unit if it is to be stored for an extended period to avoid battery leakage which can cause malfunctions.

VIDEO CASSETTES

- The VideoMovie employs only the cassettes carrying the VHS-C mark.
- Recording onto prerecorded tapes automatically erases the previously recorded video and audio signals.
- An inverted cassette cannot be inserted.
- Do not load and unload the cassette repeatedly without allowing the tape to run at all. This will slacken the tape and thereby damage it.
- Make certain before loading the cassette that the tape is not slack. If there is any slack, turn the gear on the cassette in the direction of the arrow to take up slack.
- The cassette is equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording is impossible. If you wish to record on a cassette whose tab has been removed, use adhesive tape to reseal the slot.
- To avoid excessive exposure to dust and fingerprints, do not open the front tape cover.



Storage of cassettes

- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid storing the cassettes in humid or dusty places.
- Do not drop the cassettes. Do not expose them to violent vibrations or shocks.
- Do not expose the cassettes to strong magnetic fields (near a motor, transformer or magnet).
- Place the cassettes in cassette cases and position them vertically.

N CASE OF DIFFICULTY

What may initially appear to be trouble is not always a real problem. Make sure first...

Symptoms	Check points
Power	
No power is supplied.	• Is the battery pack correctly installed? • Is the battery pack charged? • Is the power supply unit correctly connected?
Recording	
Recording is impossible.	• Check to see if the cassette safety tab in place. See page 30.
Recording does not start.	• Have you set the control panel cover to "CAMERA" first?
Playback	
Tape is running, but no playback picture appears.	• Is the VIDEO/TV switch of the RF unit set to VIDEO? • Is the TV receiver set to your video channel? • If A/V connection is used, is the TV's VIDEO/TV switch set to VIDEO?
Noise bars appear in the playback picture.	• Use the TRACKING buttons to reduce noise bars.
Playback picture is blurred or interrupted.	• Video heads may be dirty or worn out. For head cleaning or replacement, consult the nearest JVC Service Dealer.
Tape transport	
Tape stops during fast forward or rewind.	• Is the "M" indication visible in the viewfinder? If so, press the MEMORY button to cancel the memory function.
Rewinding or fast forwarding is impossible.	• Check to see if the tape has already been fully wound on one reel or the other.
Other	
Vertical white lines appear when shooting a very bright object.	• This may occur when the background contrasts very much with the object. This is normal.
Picture is blurred in the Quick Review or Retake mode.	• Is the SP/EP recording mode select switch properly set?

lote:
This VideoMovie incorporates an automatic head cleaning function which operates each time the cassette i loaded and unloaded.

Note on removing a power supply unit
Do not remove the battery pack or disconnect other power supply units while the POWER switch is set to ON. If not observed, this will cause tape damage and mis-operation.

The VideoMovie is a microcomputer-controlled device. External noise and interference might prevent it from functioning properly. In such cases, first disconnect its power supply unit (battery pack, AC power adapter, etc.) and clock battery; and then reconnect it and proceed as usual from the beginning.

SPECIFICATIONS

Format	:	VHS NTSC standard
Power source	:	DC 6 V ⎓
Power consumption	:	7.4 W (Manual Focus)
Signal system	:	NTSC-type
Video recording system	:	Luminance: FM recording Color: Converted sub-carrier direct recording Conforms to VHS standard
Cassette		VHS C cassette
Tape speed (SP)		33.35 mm/sec (1-5/16 ips)
(EP)		11.12 mm/sec (7/16 ips)
Recording time		
Max. (SP)		30 minutes (with TC-30 cassette)
(EP)	:	90 minutes (with TC-30 cassette)

VIDEO

Output		1 Vp-p, 75 ohms, unbalanced (via AV OUT connector)
S/N ratio	:	More than 43 dB (with Rohde & Schwarz noise meter)

AUDIO

Output	:	–8 dBs, 1 k-ohm (via AV OUT connector).

CAMERA

Pick up	:	1/3"-format CCD
Minimum required illumination	:	1 lux (0.1 fc) (at F/1.4)
Illumination range	:	1 to 100,000 lux (0.1 to 9,300 fc)
Lens	:	F/1.4, f = 7 to 42mm, 6:1 power zoom lens with auto iris and macro control, filter diameter 46 mm (with step-up ring)
Viewfinder	:	Electronic viewfinder with 0.6" black/white CRT
Selectable high-speed shutter	:	Switchable (1/60, 1/100, 1/500, 1/4000 second)
White balance adjustment	:	Full-auto
Operating temperature	:	0°C to +40°C (32°F to 104°F)
Operating humidity	:	35% to 80%
Storage temperature	:	–20°C to +50°C (–4°F to 122°F)
Weight	:	885 g (2 lbs) (without battery and tape)
Dimensions	:	117(W) x 122(H) x 169(D) mm (4-5/8" x 4-13/16" x 6-11/16") (incl. viewfinder)

AA-V3U SPECIFICATIONS

Power requirement	:	U.S. and Canada: AC 120 V∿, 60 Hz Other countries: AC 110 to 240 V∿, 50/60 Hz
Power consumption	:	22 W
Output	:	DC 8.5 V ⎓, 1.3 A (Charge), DC 6 V ⎓, 1.8 A (VideoMovie)
Charging system	:	Constant current, peak detection, timer controlled
Dimensions	:	145(W) x 42(H) x 69(D) mm (5-3/4" x 1-11/16" x 2-3/4")
Weight	:	Approx. 360 g (0.8 lbs)

C-P6U SPECIFICATIONS

Type	:	VHS cassette adapter
Dimensions	:	188(W) x 25(H) x 104(D) mm (7-7/16" x 1" x 4-1/8")
Weight	:	240 g (0.53 lbs)
Accessory	:	"AA/R6"-size battery x 1

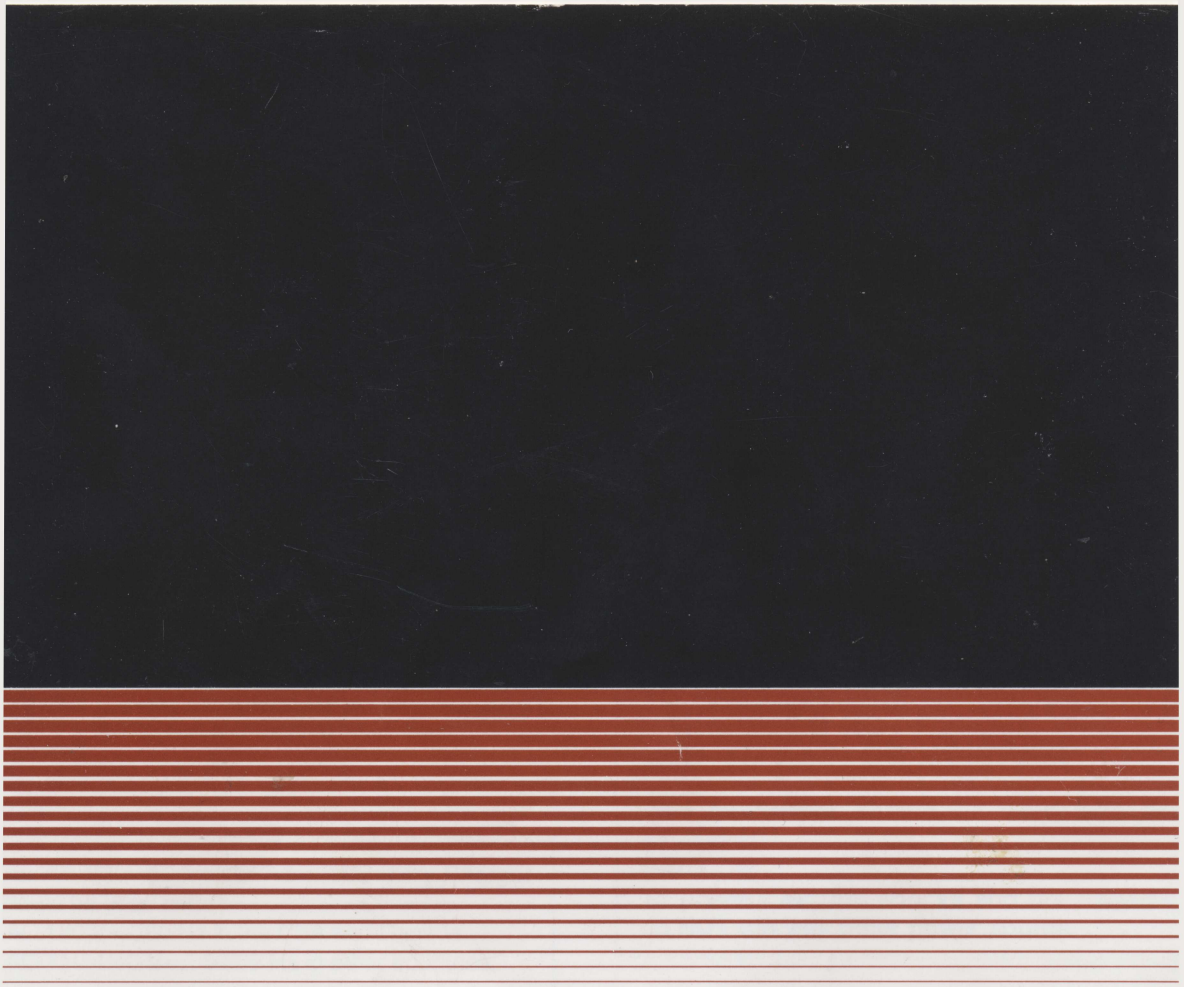
PROVIDED ACCESSORIES

AC power adapter/battery charger AA-V3U
Battery pack BN-V14U
A/V output cable VC-V826U
Cassette adapter C-P6U
Battery for clock operation.....CR2025
Shoulder strap
Step-up ring

For optional accessories, see page 27.

Specifications shown are for SP mode unless otherwise specified.
Design and specifications subject to change without notice.

MEMO



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